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GREAT TEXAS!

A wonderful state—wonderful in size, wonderful in natural resources, wonderful in its development and wonderful in its manhood. Some of the things they do in Texas—and will do!

IN the *Philistine* for March Elbert Hubbard tackles a topic he is much better qualified to discuss intelligently than he is vaccination. What he has to say to Texas may surprise some folks who fail to keep up with the swift progress of that swift commonwealth—that great really unknown, or if known, at least not in any sense fully appreciated.

What an Empire it is! The upper edge of the Panhandle is nearer to Chicago than it is to Galveston. The state is as wide as the distance from Chicago to Boston, or St. Louis to New York. You can set all New England, New York and Pennsylvania inside of Texas, and they will rattle around like peas in a pod.

The Santa Fe country can feed the world. Texas has three million folks, ten million cattle, twelve million sheep, and three million horses. Six years ago you could buy a thousand sheep in Texas for a thousand dollars. Now a thousand sheep will cost you eight thousand dollars. The real crop in Texas, however, is not wool but cotton. The cotton crop in Texas for the year 1905 was worth over two hundred million dollars in cold cash. They raise a bale of cotton on an acre, and a bale of cotton is worth sixty dollars. And yet land that is now producing a bale of cotton to the acre was worth only three dollars an acre five years ago. Texas has the second most important shipping port in America, and if things continue going as they have for the past five years, in ten years more the shipment from Galveston will exceed in value the combined exports of Boston and New York. Two-thirds of the export business of America will eventually gravitate to Gulf of Mexico ports—this according to the law of natural selection.

Mr. Hubbard tells us that the carrying of pistols is now forbidden by the laws of Texas. We all know that any real necessity for such arms has long since disappeared. Unfortunately he does not tell us directly what we are most interested in, and that is the race of men who have made this huge commonwealth what it is today. Judged by their achievements they are a race of giants. What an Empire! What a People! What a Profession! Judged by the Texas physicians we have met, they are men we want to meet again and learn to know better.

Curiously enough, while we have been for years urging the public to turn to the Southwest for opportunities, the like of which no other part of our country offers, we have never visited Texas in person. But,

we are going to visit Texas some day and see for ourselves. Just now we content ourselves with the fact that Texas is giving the strongest proportionate response to active-principle therapy (to true-blue medicine) of any state in the Union.

Call you that backing of your friends? A plague upon such backing! Give me them that will face me.
—Shakespeare, Henry IV.

IT'S UP TO TEXAS

In the *California State Medical Journal*, February issue, the editor takes a slap at the independent medical journals of Texas for their policy toward advertisers. The Texas journalists are quite capable of taking their own part, and we shall not presume to enter the quarrel; but we must take exception to the assumption that the restrictions deemed proper for an "organization journal" (there appears to be no standard), are necessarily applicable to independent publications. The editor of the former is independent of his readers (who must take his journal whether they like it or not), as long as he can muster the support that keeps him in office. He is independent of advertising and all other financial matters, since the organization is responsible for the bills. His journal being the public representative of the organization, it is incumbent on him to uphold to the highest their ideals.

The independent journalist represents and is responsible to himself. His standards are his own. If these do not suit his subscribers they quit. If his readers fail to use the articles advertised, "returns" will not pay the bills, the advertiser drops out, and there you are. Let enough do this and the journal is down and out! Its editor and publisher aren't privileged to tell advertisers they must use this journal or get it in the neck; neither may he tell the medical profession, their constituents, they are "skates" if they use anything not advertised in his journal, and "scabs" if they presume to use anything not endorsed by the "Council of Pharmacy and Chemistry." No, he has to "toe the line," to get and keep both the subscriber and the advertiser—must be fair and just to all and do the best he can for himself.

If he believes that certain advertised remedies are not good enough, are not true to name or formula—are not honest—(and he should be very careful about this), he will try to educate his readers up to his own standpoint, and then they will quit using the objectionable goods. He does not shelter himself behind the coward's bulwark, but comes out into the open and battles to live or die, as his own prowess may determine. A free man, choosing for himself, he leaves to his readers the same privilege. If, knowing he is right, he is unable to convince his readers of that fact, he is not qualified for the position; and this applies with double force to the editors of organization journals as well. Whenever a leader attempts to use force, rather than persuasion or argument, to bring people to his views, he confesses his weakness and incompetency. It is the cry of impotent mediocrity; the weapon of bureaucracy, the abhorrence of the multiplying thousands who believe in the "square deal."

Just now we are interested to see how much Philip Mills Jones will accomplish, in trying to get the medical press of Texas by the ears, through this unwarranted attack on friends Kibbie and Daniel for the advertisements they carry and the way they conduct their journals. How easy it is to criticise others; especially so for thusly-inclined Jones with the great State Medical Society of splendid California at his back to pay his bills.

It is true that the *Texas State Journal* republished the stuff, but they wisely kept still about it. Both they and Jones would have to "clean house" materially to stack up to the theory on which the criticism was made.

The attitude to be taken by the Texas profession is awaited with general interest.

Will the other Texas journals stand by their brethren, or will local jealousies divide the profession? Will the readers demand of the local independent journals the same restrictions the managers of the

organization publications choose to impose? Or will Texas physicians resent the interference and stand on their independence? Possibly, in view of the self-confessed failure of Jones to whip the California physicians into line on this matter, they may suggest that his energies are needed at home.

What's the use of scrapping? Be fair and square, work hard; be honest with yourselves and generous to others, and you'll come out all right. It is what we think, and what we do, that make us what we are.

Do not loiter nor shirk,
Do not falter nor shrink;
But just think out your work,
And then work out your "think."

THE GREAT AWAKENING

While most of those who are awaking to the neglected therapeutics talk of "teaching prescription writing," occasionally we find somebody who looks a little deeper. In the *Journal of the S. C. Med. Association* for February, Dr. A. S. Todd discusses "The Study of Therapeutics" from a common-sense standpoint. He says: "The greatest weakness of the medical profession is its want of certainty and exactness as a science in the matter of therapeutics." Surely. "We of the regular school should be ready to acknowledge our imperfections, and seek to learn all there is of truth in the therapeutics of any other school." He mentions Burgess's dictum, that all abnormalities, aside from trauma and poison, are included in three conditions, retention, invasion and enervation. "The more I have thought about this idea, the more I am persuaded to accept its correctness, for I have long been convinced that the majority of human ills are due to the retention of toxins within the body."

A strong revolt is now in evidence against the use of all galenical preparations on account of their want of uniformity, and every year more and more physicians are relying upon the alkaloids and active principles in their practice, and many report more satisfactory results than they ever obtained before. In his closing, Dr. Todd makes use of a sentence that might well be taken as a motto by the earnest, conscientious practician: "I would be glad to attain more efficiency than I have in the practice of medicine."

This means progress! We congratulate Dr. Todd and we congratulate and compliment the *Journal of the S. C. M. A.* for voicing these sentiments. Let the good work go on. The day is not far distant when the doctor, *the real doctor*, will come into his own—will cease to be the tool of monopoly, the catspaw of quackery and commercialism, and will *reach* out for his unquestionable, inalienable right and say, "*Hands off!* These are mine!"

Are you a cheerful loser? If so, you are bound to win out big in the long run. Take your medicine.
—Elbert Hubbard.

STRYCHNINE DOSAGE

In the *Lancet* for Feb. 16, Albert S. Morton discussed the dosage of strychnine. Martindale and Westcott put the dose at from 1-30 to 1 grain; 1-2 grain has poisoned an adult according to Taylor. We have given a grain during twenty-four hours.

Much, however, depends on the condition of the person who is taking it. The writer, not long ago, returning from a fatiguing case, on a cold night, felt so weak that he took two granules of strychnine nitrate, containing a milligram each, chewing them, so that the medicine was probably absorbed from his mouth. Within less than two minutes he was affected with salivation and twitching of the muscles about the mouth.

Dr. Morton referred to statements that one-half a grain of strychnine has been taken at once. He asked the following questions, which might be discussed with advantage: (1) Is the statement true? (2) What is the explanation? (3) Does the dose need revision and increase? (4) Can strychnine be eaten as the Styrians eat arsenic? (5) Is idiosyncrasy common? (6) Does use engender immunity?

(7) If a physician prescribes a grain of strychnine at a dose and death ensues, what would be the verdict.

THAT PLATFORM

On the front cover of CLINICAL MEDICINE for March we printed a few of the principal things we stand for: the things "we do," and those "we don't." Stating our platform thus broadly, we ask you to consider whether these are the things right and honorable professional persons should profess and do, and if doing them, we have not a right to look for the support and co-operation of other men who think as we do and who support the same things. If so, we may then safely conclude that those who display the most venomous antagonism toward us are men who do not approve of our platform, or take the same view as we of such matters.

But not necessarily. Human nature is not so simply constituted, human actions not so readily estimated. It may be that the men who so actively oppose us are also openly advocating the very things we advocate. Their enmity may be explained in two ways—they are not sincere in their expressed views but really embrace a cause to betray it; or they desire first selfish ends, and find themselves embarrassed because they can not take a step along the line of therapeutic reform and progress without finding themselves treading in the footsteps of predecessors—not of some mere chance wanderer either, but of a large and increasing army who have marked out a broad highway and trodden it so freely that mistake is impossible.

Take any copy of this journal over ten years old, and then look over a pile of the recent publications and see how they are slowly but surely coming up to where we then stood. This world is full of folk who can stand the egg on its end after they have been shown how. The Little Red Hen had plenty of aid when it came to eating the cake.

In most journals we now note the call for more attention being paid to the teaching of therapeutics. Generally it takes the form of teaching prescription building, never that of studying the actions and uses of single remedies first. The cart must come before the horse, apparently, until the error becomes so evident it can not be ignored.

The dear old Professor of Materia Medica, with his clean-brushed gray Prince Albert and carefully pointed moustache! How he would strut into the ampitheater, bow to us, and proceed to tell us about—Rottleria tinctoria. Remember? What *was* Rottleria tinctoria? Ever give it? Ever know of anybody who did? Gross used to say, if he taught that branch he would tell the boys how to make a poultice and broil a steak. But he taught us also how to give tincture of iron in maximum doses for profound depression, and iron potassiotartrate for phagedena, and many another thing we proved true in practice. But nobody ever taught us *why* to give a drug, when to stop it, how to recognize its action, how long it took to get to work and how long the effects lasted. Does anybody teach those things now?

A man must be one of two things; either a reed shaken by the wind, or a wind to shake the reeds.
—Handford.

"LOOK FOR THE UNION LABEL"

There is a strenuous effort to trade-unionize the American medical profession, even to the extent of requiring the "union label" on all medicinal products, in the form of the endorsement of the Council of Pharmacy and Chemistry of the American Medical Association. Read the following in the March number of the *California State Journal of Medicine.*

"Any remedial preparation that you do not find in the list of 'new and non-official remedies,' as issued by the Council, is one to look upon with suspicion; it *may* be a good and legitimate product, but the chances are that it is not, or that the proprietors have uttered exaggerated statements as to its value."

Are we to assume from this that the Council or its misadvised friends propose to institute a boycott against all medicinal products, whose manufacturers refuse to be fitted to the Procrustean bed which has been especially built for them? It looks so —in spite of the fact that when the Council was established it was distinctly stated that the absence of any product from its "extra-pharmacopeia" was not to be regarded as prejudicial to such product. It looks now as if the great Association proposes to raise the cry of "scab" against every manufacturer of sufficient independence of character to refuse to conform to the exactions of the Council, some of which are inane and unjust.

While studying over this proposed boycott, it is worth your while to bear in mind the following facts: That of the 250 odd preparations thus far "passed" by the Council, less than 60 are American; the balance are foreign products, mostly coal-tar synthetics. There are dozens and dozens of these of which the average American physician has never even heard, and whose therapeutic uses are but imperfectly known. Furthermore, please note that of the 59 American products admitted, *one house* has 23. The following American firms are not represented—not even by a single product: H. K. Mulford & Co., John Wyeth & Co., McKesson & Robbins, William R. Warner & Co., Eli Lilly & Co., William S. Merrill Chemical Co., Lloyd Brothers, The Abbott Alkaloidal Co., and also practically all of the proprietary manufacturers, good, bad or indifferent—in fact we can now think of but one of the last which has been let in, and that one with a product which is a spy-employee pirated imitation of antiphlogistine.

It is also worth while to remember that of the fifteen members of the Council *not one is a practising physician.* Practically all are pharmacists, pharmaceutical teachers or chemists, not one of whom is fitted, by practical experience, to pass upon the therapeutic efficiency of a single preparation; and yet they can "black-ball" on the charge of "exaggeration"—as well as upon a number of other points having no bearing upon the merit of the preparation whatever. Yet the findings of the Council are to be made the basis of a systematized attack upon all manufacturers who decline to apply for admission, for any reason whatsoever, to the "extra-pharmacopeia"—is that what we are to understand? Let us have a frank statement of your purpose, gentlemen. It will clear the atmosphere.

THE COLORED GENTLEMAN IN THE WOODPILE

The *California Journal of Medicine* is interesting this month. Another editorial item in its last issue contains food for thought —and we will say this for Jones, that there is no dearth of thought stimulus in his columns.

In this editorial he refers approvingly to an *entente cordiale* entered into between a Pennsylvania county medical society and the local pharmacists. It seems that "the pharmacists have undertaken to stop dressing their windows with nostrum displays, to stop counter prescribing, to discourage the use of nostrums and 'patent' medicines, and to refer patrons to physicians. On their part, the physicians have agreed to stop prescribing 'proprietary' preparations so far as possible, to stop dispensing and to confine their prescriptions to preparations of the Pharmacopeia and National Formulary." The *Journal* thinks it would be nice if such an agreement could be entered into in every county in the United States.

Why nice? The principal reason apparent to the casual but interested observer is because it would be such a fine thing for the druggist. Is this to be the "first battle" of that pharmaceutical board of strategy, the Council of Pharmacy and Chemistry? It sets us to thinking—and wondering. The Council is composed of an able body of men, whom we greatly respect, but the pharmacists dominate in it, and it is not to be wondered at if the interests of their guild shall at heart be considered paramount to those of the practising physicians who employ them.

Now concerning this agreement. The sale of proprietaries is notoriously unprofitable and has led many druggists to offer substitutes of their own, "N. F." and others, from which more money is to be made. They, therefore, sacrifice little in making their first concession. Counter-prescribing is illegal, and their second concession is, therefore, simply a promise to obey the law. On the other hand, the doctors, in agreeing to confine their prescriptions to the preparations of the Pharmacopeia and National Formulary, must absolutely surrender the right of therapeutic initiative, must abandon the study of new and possibly more efficient remedies, strike out of their therapeutic armentaria all that is not stamped "official," and lose control of the quality of their drugs.

The doctor practising under this agreement with the druggists may not give antiphlogistine, a product with a reputation behind it, but he may give "kataplasma kaolini, U. S. P.," the pharmacopeial imitation, trusting that heaven, in the shape of the druggist that makes it up, may be kind and the clay paste that he gets not utterly worthless. He may not give arsenauro, but he may give the N. F. pirated imitation, "liquor auri et arsenii bromidi," without any assurance that the extemporized preparation will have in it any of the *quality* upon which Parmelee has staked fortune, reputation and honor. The druggist has nothing to lose if the stuff which he makes is a little "off"—but it may mean much to the doctor and his patient. Let us put the question directly to you, Doctor: Do you want preparations like these made by men who make a business of it, who have every facility in the way of capital, specially constructed machinery, skilled help, carefully perfected processes and technic, dependable materials, etc., or those made up by the ordinary drug clerk with the materials at his disposal? Which product is likely to be the best?

The proposal that the physician shall surrender his unquestionable right to carry and dispense his own medicines smells too much of "the nigger in the woodpile." It's too one-sided and is apparently part of the organized effort to wipe out the dispensing "habit" in order to bring this business back to the druggist. If dispensing were only a question of dollars and cents, something might be said for the plan. But that isn't the main question. The first thing to be considered is the interest of the patient. The physician who forgets this is untrue to his highest duty. We have not a word of reproach for the doctor who believes that, all things considered, he can serve his patients best by writing prescriptions. Believing that, it is his duty to prescribe. For the same reason it is the duty of every physician, who finds the highest efficiency in dispensing, to stand by his arms. If he gives way to the lash of organized power, which seeks to whip him into line, he is no longer a man.

This is a personal, an individual question. Every man must settle it for himself on its own merits. We have every confidence that the American doctor has sufficient back-bone to resist the gag policy of those who are seeking to rule or ruin. His nose stretches, 'tis true, and he is naturally good-natured and long-enduring, but we predict that ere long there will be a reaction—and when it comes, the leading force will go head over heels into the gutter and the now abnormal proboscis will retract into a stern face that in its set lines will say, "There now, what are you going to do about it?"

THE MISSOURI VALLEY

One of the most enjoyable meetings the writer has attended for some time was that of the Missouri Valley Medical Association at Omaha, March 21st and 22nd. Omaha is a nice city to visit, and the Paxton Hotel a good one at which to stop. Of the Omaha physicians it is always pleasant to meet men like Coulter, Mason and Henry. Dr. Campbell of St. Joseph presided and the ever popular Fassett of the same city acted as secretary and general lubricant.

Drs. A. H. Ferguson, A. C. Croftan and F. B. Turck represented Chicago, while C. O. Thienhaus held up the banner of Mil-

waukee, and C. Lester Hall spoke in no uncertain terms of the glory of Kansas City. This society is a social one, where everybody gets acquainted with everybody else; and this meeting showed that the highest type of modern medical science can be combined with the social amenities that make glad the heart. It is one of the meetings one ought not to miss.

If I knew you and you knew me—
If both of us could clearly see,
And with an inner sight divine
The meaning of your heart and mine,
I'm sure that we would differ less
And clasp our hands in friendliness;
Our thoughts would pleasantly agree
If I knew you and you knew me.
—Nixon Waterman.

ECLECTIC METHODS AND REMEDIES

Give honor where honor is due. The day is past when any physician of the regular school need hesitate frankly and manfully to give full credit to the members of other schools for whatever good work they have done, in our common profession, toward alleviating the miseries of humanity and prolonging human life.

The specific study of symptoms and the application of therapeutic remedies at the bedside have developed in the eclectics qualifications which are by no means to be despised. It is to our shame that we say that we have not paid the attention to this department of medicine which it deserves, but have rather contented ourselves with studies as to etiology and pathology. The tendency has been by far too great to stop with the diagnosis of disease and ignore its treatment. This, however, is rapidly changing, and throughout the field of medical literature may be seen everywhere evidences of an arousing interest in the treatment, a disposition to study the properties of drug-remedies and to apply them to proper conditions rather than to diseases as entities.

We must further call attention to the fact that the really good work done by the eclectics would not have been possible, had they not been so fortunate as to have at their back supply-houses from which to draw drugs of remarkable qualities. The houses of Lloyd and Merrill have enabled the practicians of this school to do work in the clinical field, which would have been impossible had they not been supplied with drug-remedies of the finest quality obtainable, and in which each individual drug has been handled with a pharmaceutical skill, which we very much fear, is not to be found in the ordinary preparations furnished by miscellaneous manufacturers and taken up at random in the various pharmacies.

It is true, the theory of drug-action held by Lloyd is not that which we hold, he adhering to the old conception of the whole-drug action, whereas we cannot but see in the whole-drug action the combined action of its combined active principles, necessarily varying with the quantity and proportion of each of these which may happen to be present in each specimen of the crude drug. Nevertheless, we do not hesitate to express our belief that in the elaboration of decolorized and green-drug preparations, these houses have approximated the ideal much more closely than the manufacturers of the pharmacopeial tinctures and extracts.

"GOD DOES NOT STAMP MEN 'GREAT', HE MAKES THEM PROVE IT"

The ideals to which we endeavor more or less successfully to approximate our lives change from age to age. We recall seeing in an English book, intended for the encouragement of boys, an anecdote which told of the "good boy," who attracted the favorable attention of his master to such an extent as to justify the hope being held out to him that by perseverance along the line he was following he might one day perhaps qualify himself to fill the honorable and useful position of a coachman! We rather imagine that that ideal would scarcely do for the American boy.

In many books, English, and American imitations, the ideal held up for the youth was that of modest merit, which lingered in the back seat until Consequence detected

it, led it forward before the multitude, and placed it in the seat of honor. That ideal is also a back-number. Why should merit wait for authority to recognize it? Nowadays merit pushes through the line like a football player, and proves its merit in the good old-fashioned way, by shoving weaker and less meritorious individuals aside.

The gospel of the day is Hustle. In this heterogeneous mass of confused races that is being amalgamated into that wonderful development, the future American people, it is the strong, the capable, the fit, that comes to the front. In private life, in choosing the associates of an elegant leisure, modest merit has its charms; in the battle of life, other qualities are preferable. After all, there was something in that dyspeptic, crabbed old Scotchman, Carlyle, whose studies of humanity, of men and of things, led him into a constantly increasing admiration for power and force.

Witness the scant sympathy shown to the doctor who complains that his neighbor is encroaching upon his field of practice by unfair means. Now and then complaints of this kind come before the medical societies, when everybody excepting the party aggrieved seems to unite in the effort to ignore the difficulty and shove it into the background. Whether it is expressed or not, the feeling excited is that it is up to a man to take care of his own interests; and if he fails to do so, it is his own fault.

The struggle for existence is incumbent on every one of us and cannot be shoved off upon the community. If the other man is stealing your patients, sit down and think out the best way to stop it. We are not by any means advocating a club; it depends altogether on the man, and it may well be that repeated acts of kindness and pleasant expressions dropped here and there, will shame a man of really good feeling into refraining from such unfriendly acts. But there are men and men; and while this succeeds with some, and is always advisable when applicable, it is not uniformly so. The necessity for every man pushing, hustling, fighting, struggling and striving, to get himself to the front or the top, and to keep himself there, is one of the conditions under which Nature has planted us here on earth; and we have no possible right or reason for expecting that we should be made an exception to the universal law which governs animate and inanimate beings.

When will we learn that it is not the number of hours we work but the efficiency of the work done that counts? Many of us would accomplish much more in two or three hours of vigorous, effective work, when the mind is fresh and resourceful, than we could accomplish in an entire day with the whole system out of tune.—"Success Magazine."

WHO WILL HELP HIM?

One of our friends sends us a number of *The Modern Woodman*, containing a full-page patent-medicine advertisement, headed with the sentence, "How Can We Humbug You?" This plea for aid is pathetic. However, we presume that the readers of the *Woodman* will do what they can for this earnest seeker for other peoples' goods—he must "need the money." Why else should he make this "touching" appeal to his are-to-be victims?

The means to the frankly confessed end of this advertisement is a "mineral remedy," which will cure ("or you don't pay a cent") "Rheumatism, Kidney, Bladder and Liver Diseases, Dropsy, Stomach Disorders, Female Ailments, Functional Heart Trouble, Catarrh of any part, Nervous Prostration," and numerous other complaints. There are touching testimonials to its efficiency, as that of the Alabama man who tried the doctors, and "also tried Polecat Oil, Barfoot and old Bacon rinds, also Whisky and Polk Root"—all of which failed—remarkable as it may seem. But—the "mineral remedy" made him a "new man." We wonder what it would do for a "new woman."

Seriously, the great Woodman order (of which the writer is proud to be a member) is stultifying itself by allowing this rot to be published in the advertising pages of its national organ. Every physician who is a member (and that means thousands) should make himself heard in protest.

We advise *The Modern Woodman* to "clean out, clean up and keep clean."

WE ARE ENCOURAGED

Yes, we are *very* much encouraged. Our esteemed friend, counselor, guide and journalistic elder brother, the *Journal of the American Medical Association*, must be beginning to see the light, even "if through a glass, darkly," since in its number for March 16 it gives brief abstracts of three (to us) interesting articles on scopolamine-morphine anesthesia, in the *Muenchener Medizinische Wochenschrift*.

In the first article Gauss writes from Krönig's gynecologic clinic at Freiburg, a report of 1,000 cases of childbirth under the "twilight sleep" of scopolamine-morphine. Gauss is warm in its praise. His records are careful, exhaustive, covering every detail both as regards mother and child. The mortality of the children, since his technic has been adopted, has fallen 3 per cent, and the average amount of blood lost by the mothers has been reduced. He declares uncompromisingly in favor of this method of painless delivery. In a second paper in the same journal Preller reports his experience with 120 obstetric cases handled in the same manner, and as in Gauss's cases, his results were all favorable; he recognizes some contraindications.

Penkert writes from the same clinic, as the *Journal* says, "to commend the scopolamine-morphine technic as a valuable preliminary to spinal anesthesia. He asserts that it relaxes the abdominal walls and excludes all perception of what is going on, while the analgesia is complete—thus affording ideal conditions for laparotomies. The technic used differs a little from Bier's; larger doses of the spinal anesthetic are used, but the pelvis is never raised. He found the by-effects of the anesthetic much less than with other technics. The method is now currently employed for all abdominal and gynecologic operations in the clinic, where it is regarded as the most humane technic known to date."

It must seem very strange to the *Journal* that no deaths or accidents have been reported by these investigators. Can it be possible that there is something in this scopolamine (or hyoscine) business after all? Is it possible that some of these early deaths were a not unnatural consequence of an undeveloped technic or an impure drug—commercial scopolamine of low rotation? What do you think, brother *Journal*? Don't you think that the combination of pure hyoscine with morphine and cactin *might* be worthy of investigation, even if it was suggested by Abbott? The real worth of a preparation is only to be determined by its practical application. There are interesting reports elsewhere in this issue.

The world will buy largely of anyone who
Can deliver the goods.
It is ready and eager to barter if you
Can deliver the goods.
But don't take its order and make out the bill
Unless you are sure you'll be able to fill
Your contract, because it won't pay you until
You deliver the goods.

—Nixon Waterman.

STANDARDS AND STANDARDS: THE ADVERTISING QUESTION

In some of the official journals we note, not occasionally but persistently, a disposition to criticise the practice of other journals, independent or likewise official, in the matter of the advertising they handle. This matter is attracting a good deal of attention; and in the *St. Louis Medical Review* for March 2, Dr. Millican, while frankly approving the stand made by Dock on proprietary medicines, makes a strong appeal for free criticism and reply for the open arena instead of star-chamber methods. Good for Millican!

So very much depends upon the point of view. Let us see if we cannot broaden the question: The position taken by each journal in regard to advertising must depend upon its own special conditions. It is obviously unfair for one journal, occupying an advantageous position, to demand the same standard from all others which it erects for itself. There are certain

eternal, fundamental principles of right and wrong, however, which should govern everybody; but advertising is not based upon such fundamental principles. It is guided to a great extent by custom, tradition, the character of its readers, etc.

Take the official journals, the *Journal of the American Medical Association* and the state journals. Here the financial question does not enter into the consideration of their managers, for this devolves upon the associations of which the journals are the exponents. As exponents of these aggregations of men, the journals should represent in every particular the standards erected by the membership thereof. As members of the national and the state and country organizations, we exercise but our individual right in urging what we believe to be the proper ethical standard for the journals which represent us. Taking into account the fact that we support these journals, and that the advertising they carry is only incidental and strictly subordinate to the interests of the members, we urge that the advertising be regulated by the following rules:

First: No advertisement shall be admitted of any remedial agent which is also advertised directly to the public, excepting toilet articles, like soaps, powders, etc., and articles of a purely general character, like beds, buggies, stoves, clothing, etc.

Second: No advertisement shall be admitted of any preparation whose essential drug composition is secret.

Third: No article shall be advertised in the journal whose manufacture or sale is held under a monoply other than that of brains and ability exercised in its manufacture. Such articles may, however, be trade-marked to indicate the maker.

Fourth: No advertisement shall be received from any house which furnishes to quackery the material with which to compete with the ethical physician in his struggle for a livelihood—that sells to the laity as against the doctor or makes goods for those who do.

In regard to the first and second rules there is practically no argument. As to the third, it is contrary to professional policy that the profession and, through it, the suffering public should be compelled to pay extortionate prices for remedies needed to relieve human suffering and save human life. The only field for legitimate ethical competition between supply houses should be as to the quality of their products. The fourth rule simply asks the supply houses to come out frankly and declare whether they are with the doctor or against him—whether they are giving us the square deal or the "double cross."

We believe that no one will seriously attempt to combat the practical ethical character of either of these four rules. The only question is as to whether the journals will come up to this standard. In the case of the official journals where, as we have said, there is no question as to financial needs, we put the case squarely as follows: Are you ethical enough to toe this line?

A cursory examination of the February number of the *California State Journal of Medicine*, one of the most vociferous advocates of higher medical standards, in *other* journals, shows that it would have to drop about thirteen and three-fourths pages of its advertising in order to meet these requirements.

With independent journals the case is altogether different. They do not represent organizations, and are not under similar obligations. They may be held as representing either the personal views and ethical standard of their publishers, or of their subscribers, or of both. If the advertising pages of any such journal suit the views of the publishers, and evoke no serious protest from their subscribers, we fail to see wherein anybody else is interested.

The days of the inquisition are over. Calvin would not now burn Servetus at the stake on account of a difference in theologic dogma. But the intolerant spirit which leads one man to endeavor to force his views upon others will never entirely disappear, although the advance of civilization renders it less obvious and, thank

God! less powerful for evil, while an exercise of liberality of mind, when we have come to trust the promoter, enables us to absorb much of good. All men with something to sell are not liars and consistency is as much of a jest (and as rare) as ever.

COMMERCIAL CUPIDITY AND PURE DRUGS

In the discussion of this dispensing question there is another point worth considering, and that is, that the doctor who is dependent upon the pharmacist for his supplies must take just what is served up to him or to his patients on his prescription. Rarely a chemist himself, he is unable to assure himself of the purity of his medicines; this leaves him absolutely at the mercy of the druggist. If the druggist is an honest and well-educated man, the result may be satisfactory; but too often the doctor can not control his prescriptions; some of them are sure to go to careless and unscrupulous men who are dominated absolutely by commercial interest. In such a case the result may be and often is disastrous.

The result may be more far-reaching than the doctor's individual practice—may mean more than simply the loss of a single case; though even that is enough to cause him to cry out to high Heaven for a better way. Failure with an impure sample of a drug too often leads to the abandonment of that remedy, not by one physician alone, but by the many who may be influenced by his reports. Take the hyoscine-morphine combination for instance. Early experiments with this anesthetic idea were made, undoubtedly, with impure and unsafe scopolamine, it being assumed that scopolamine and hyoscine were identical. There were deaths, far too many of them. Superficial "investigators" immediately jumped to the conclusion that *every* anesthetic of this character should be condemned, and have tried strenuously to kill the h-m-c. Fortunately for humanity, the flaws in their argument were pointed out and another great remedy was saved from undeserved reproach.

This emphasizes a thing for which we have repeatedly contended: that the doctor should have control of the drug supply—should have some way of knowing that it is pure and of uniform strength, accuracy and potency. He can't secure these ends when the remedies dispensed on his prescriptions are bought cheap to sell dear—from this motive and none other. This being the case, *it is absolutely essential that the physician should secure remedies from a source upon which he can depend.* That—at present—has an inevitable tendency to lead him away from the pharmacist. How can it be otherwise? Mr. Pharmacist, it's up to you.

What is a gentleman? I'll tell you: A gentleman is one who keeps his promises made to those who cannot enforce them.—Hubbard.

THE REASON FOR OUR SUCCESS

Even our enemies, those who decry CLINICAL MEDICINE and its work, admit that it is a success, even though they can't understand it! By all the rules of medical journalism, every one of which we have smashed dozens of times, we long since should have been "down and out." We do get a "knock" once in a while; but "knock outs"—never! We are so busy making new friends and we get such warm, heart-full encouragement from the old ones, that these little dinky "knocks" don't worry us.

Now, I'll tell you the secret of our success: We have something to say, we are in earnest, and, like Wendell Phillips, *we will be heard!* We didn't start this journal and we don't run it now merely because we were looking for office or honors, or seeking to make it a feeder for our practice, or because we were literary and wanted a medium "for expression," or even, as some of our neighbors accuse us, just to make money.

No, the reason for the success of this journal is because it stands for an idea,

which constantly drives us to our work, awakens our latent energy, stirs our enthusiasm, quickens our wits. We say what we believe and we believe what we say—and we just have to say it! That's why you like to read CLINICAL MEDICINE—one reason.

Another reason why you like it, is because this work, this energy, this enthusiasm, this optimism, this faith in manhood in general and the medical profession in particular, is all in your behalf—to strengthen *your* hands and help to make *you* a better man and a better doctor. If you read the journal thoroughly, from month to month, you will believe this. If you do not read it you have no right to sit in judgment upon the journal and its work. We challenge you, as a man, to put it to the test of a year's careful, unprejudiced reading. Then come on with your criticisms. We'll print 'em.

And finally, CLINICAL MEDICINE "plays no favorites." Its columns are open alike to college professor or cross-road's doctor. The only test is that the writer shall have something to say, that he shall say it concisely, in his own way, and in a spirit of real helpfulness. It's this free and frank interchange of opinion and experience that makes the journal invaluable. We get more material than we can use—but not a line too much. Don't he discouraged if we do not use some of your articles. Those we print are not always the best—not by a long shot. We try to print those which will do the greatest good to the greatest number. Therapeutic articles appeal to us most because we believe they are needed most, and especially articles about the alkaloids and active principles—for that's modern and up-to-date.

But our field is not restricted to this even. The doctor is first of all a man, and *his* journal should take cognizance of those wider and more vital human sympathies which appeal to every man and woman. If you have the gift of "rhymstering," give us a sample, or if you can write a nice little medical story or "skit"—try your hand and send it in. A little wit or pathos brings us all closer together, and that is what we want, to get just as close to the heart of the American doctor as we can.

RESPIRATION UNDER HYOSCINE-MORPHINE-CACTIN ANESTHESIA

The respiratory phenomena occurring during anesthesia with the new hypodermic agents deserve study. The first class witnessed by the writer saw respiration sink in frequency to six per minute. The attendants were startled, almost panicky, but the experienced surgeon (Lanphear) disregarded all appeals to inject strychnine, etc., and proceeded leisurely with the operation—for appendicitis—as if nothing had occurred that necessitated any variation from the usual routine. The results justified him fully.

Vierordt gives the average rate of normal respiration at 11.9. Others put it for adults at 16 or 18. During sleep it falls from one-fourth to one-third. Hyoscine induces a sleep more closely similar to the normal than that of morphine. It has been suggested that the fall during this anesthesia is little, if any, more than occurs normally during sleep, which appears to be true. If 16 be taken as the normal adult rate, and one-third for the reduction during sleep, we have about 11 as what we may expect, and somewhat fewer may still be within strictly normal limits.

But here is an interesting recent observation—the respiration had fallen until cynosis supervened. The patient was then aroused, by speaking to him or gently shaking the arm, when he at once began to breathe faster and the cyanosis subsided. This was repeated whenever the blueness recurred, and the operation was completed successfully in every respect.

If the cyanosis can be so readily dissipated it is not very perilous. Observations show that the blueness may be phenomenal, in surgical cases and in newborn children, and yet easy recoveries follow.

We are not seeking in the least to minimize the perils attending this new anes-

thetic method. We are as anxious as anybody to have the plain, unvarnished truth developed. But this will come neither from enthusiastic, undiscriminating advocacy, nor from such prejudiced presentations as young Wood's. What we object to is the disposition to compare this method, as yet under trial and with the technic perhaps not fully determined, with the results of ether-administration after half a century of elaboration. We can not forget that Weir Mitchell himself, after three experiments with chloroform on animals at a Philadelphia clinic, in which all three died, condemned that method unqualifiedly. The technic of the new hypodermic method is so far from perfected that three parties exist, one of which asserts that the injections alone should be utilized, another that the preliminary injections should be followed by a volatile anesthetic, and a third urges that the injections be combined with spinal anesthesia—injecting cocaine into the spinal canal.

Is the inhalation method perfected? The report of the Hyderabad Commission, with Lauder Brunton at the head, gave the preference to chloroform, and the proof was so clear that H. C. Wood (not the present juvenile kicker) was compelled to make the remarkable claim that the "pariah dogs of India on which these experiments were made must react differently to men and animals in America," to account for the failure of his beloved ether.

We are informed that the statistics on ether show but one death in 15,000 administrations. Nevertheless, comes Crile with a new and exceedingly complicated method of administration, which could not have been that used in the 15,000 cases, as it has not been before the profession long enough. If Crile is right and his method the only correct one, how about those utilized in the 15,000? All wrong, and yet no deaths. It passes belief.

Who made these 15,000 administrations of ether? The rank and file of the profession, using any and every make of ether to be found on the market? Anesthetizers who had no previous experience with ether and who had not the advantage of a perfected technic? These were the conditions under which the user of the new agents worked, and a fair comparison exacts like conditions. And remember that by this method you operate on your case, or "deliver" the mother, or relieve pain and spasm into a sound hypnosis closely resembling normal sleep, a condition which accounts for the existing symptoms and a condition, when fully established, from which any amount of pain will not arouse the patient, but which disappears slowly but surely through the cessation of action of the drugs producing it, the action being sedative and soothing, not arresting secretion and, therefore, not producing the terrific autotoxemia invariably induced by the administration of ether, chloroform or morphine alone or in usual atropine combination, in the order of mention.

Much talent is often lost for want of a little courage.
—George Eliot.

A CHAIR OF INEBRIETY: WHY NOT?

In the *Albany Medical Annals* Dr. T. D. Crothers makes a plea for special instruction in medical colleges on the subject of inebriety and its management. Alcoholism is one of the most common causes of disease, it affects an appreciable percentage of every community, it subtracts a huge share from the income of every practician, and the medical graduate has been taught less concerning it than of locomotor ataxia, which he may not meet once in ten years. Meanwhile we are poor, and the Keeleys make millions out of the alcoholics.

"Busy physicians find that alcohol is the very genius of degeneration, when used as a beverage and continuously. . . . . In some vague uncertain way the possibility of disease may be recognized, but how to study and what means to use in the treatment are practically unknown. The textbooks of medicine give little or no information, and the physician is obliged to turn to moral and ethical lines of treatment."

Dr. Crothers is right. One has only to think of the topic, in its far-reaching importance, to realize that from every point of view the colleges owe it to us to take up the matter. A chair devoted to alcoholism would meet the clinical needs and give practical information that would be of inestimable value to the graduate. It is a disgrace to the men who have undertaken the education of medical men that the majority of Keeley's patients have been physicians themselves, or were sent to him because the physicians knew of no ethical men qualified to cure them.

The most manifest sign of wisdom is continued cheerfulness.—Montaigne.

ALTRURIA

We have taken pains to secure sample copies of many little journals, candidates for favor under the guise of advocating, in various phases, what may be collectively designated as the "new thought." Ourselves innately and hereditarily heretical, we looked to these exponents of the rebellion against conventionality and smug hypocrisy, for something with which we could harmonize. We therefore approached this new-thought literature with the hope of at least finding others like ourselves, with harmony of view, consensus of sentiment. Alas! even in this conventicle of wandering outcasts we find ourselves strange and alone.

This new thought is mostly old error; theories exploded so long since that only ignorance could possibly account for their reappearance; and not even in new guise, or fortified with new testimony. The restraint against which these people so vehemently inveigh is self-restraint, always difficult to weaklings and degenerates. The prejudices they display are worse, less excusable, than those they decry. The liberty they crave is license, the freedom to follow their own mutable passions, with no thought for the consequences, no consideration for others. The conventionalities of society are often bad enough, but if we do not stop with declamation or citing some glaring instances in which the law by its inevitable generality works to the detriment of the exceptional individual, we find that the present system was not enacted in advance but grew out of the conditions of human development, and approximates the ideal more closely than any substitute as yet devised.

Now, all this long preamble is designed to show in what state of mind we took up the first member of "*Altruria*." With W. J. Robinson we had some little acquaintance, as relating to the front the man presents to the world—on guard, uncompromising, looking for trouble and meeting it more than half way, quick to see and loud to decry shams and wrongs. Since the first issue of the *Critic & Guide* its editor has made himself a power that must be reckoned with, but one feared by no upright man engaged in any legitimate enterprise that has no reason to fear the light.

In *Altruria* we hope to see, not the mailed champion, but the man; for this is a labor of love, a journal prompted solely by the man's need of expressing himself.

What an array of names on the columns! Every cry to arms of the centuries is there. Beginning with Heine and Ingersoll we note Spinoza and Marx, Buddha and Beethoven, Voltaire and Darwin; and the thinkers who have overturned the accepted creeds and shouldered Error out of the path of mankind. We have read, and reread, and absorbed every line of this issue. There is here no senseless railing at the marriage bond, which makes of earth a heaven when man and woman mate; no ignorant assailing of vaccination simply because it is almost universally accepted. Optimism vs. Pessimism—the happiness and welfare of humanity depend on the choice. The live questions of Today, not the scholastic disquisitions of the past, nor the barren pseudo-science that looks to an infinite future for utilization; the wholesome lessons of modern hygiene are here presented. "Was Whitman a great poet?" The editor says no;

the keen instinct of ardent youth says yes; and we agree with the "Sentinel." True, Whitman rarely stooped to rhyme—but when he did! His poem on the death of Lincoln is a classic; his lament of the bird in quest of his lost mate moves the heart of any live man to its depths. Even in his lighter verses there is a musical lilt that imprints it in the memory.

> "Twas when our dusty lines
> Threaded Carolina's pines,
> As along with doughty Sherman we
> Marched upward from the sea."

It's a jumble; you've heard it now and you cannot get rid of it, but unconsciously hum it all day long. Yes, Victor, these three are enough to justify your estimate of Walt Whitman.

But in another matter we take issue with the "Solitary Sentinel." We do not approve of making a feature of discussion and investigation of the sexual relations. We fully grant their importance and the need of their study. Men and women are cursing the day they were born, are fighting, going insane, driving others insane, making themselves devils and earth a hell, all for want of the knowledge that can only come from a free and untrammeled discussion of sexual physiology and pathology, by those who are competent. But this is exactly what is not to be had under present conditions. No such discussion is possible in any publication that circulates by post to a general public; hence any attempt in that direction is sure to be futile. It is not that the attempt to carry it on will surely bring trouble—to a man of the stuff before us martyrdom holds out allurements not to be resisted—it is because of certain failure and wasted efforts sadly needed in directions where success is possible. Our objection is not prudent cowardice but calculating-utilitarianism.

There is this to be said about discussions of sexual matters: as one goes further into the topic his viewpoint alters. The limits he first sets to what is permissible in the discussion recede, until things appear as a matter of course that at first he would unhesitatingly have denounced as obscene. Then—he is called to face a charge that is in itself a disgrace. And—we sympathize with a friend who asked for vaccination because he preferred to 'die of a clean disease.' Once there was a soldier, noted throughout his division for his many heroic exploits. Time and again he braved and escaped dangers that daunted the boldest, but he seemed ever to hold a charmed life. At last he was tremendously kicked by a big mule, and this time death was inevitable. When informed of his fate, to the amazement of all he burst into tears. Seeing the contempt on his comrades' faces, he explained: "It's not that, boys; not that I am afraid to die; but after all the high and mighty chances of dying I've had, to be kicked to death by an infernal, long-eared, heehawing son of a jackass!"

Same as to Comstock.

INDEPENDENT AND ORGANIZATION MEDICAL JOURNALS

In *The Medical World* for March, page 117, is a letter which, with the editor's comment, touches upon the most important phase of medical journalism today. The writer makes a strong and sensible plea for the support, by the physician, of the national and state medical journals and of the independent journals as well. He points out that each of these publications fills a need which none of the others does, and that each is essential in its way.

Dr. Taylor's reply is one of the finest contributions from his pen which has appeared in the *World* for many a day. The broadness of his views and the fairness of his attitude toward the organization journals leave nothing to be desired. Dr. Taylor's position, which we endorse, is to live and let live. He admits the value of organized medical journalism, but also claims independent journalism as of equal necessity. The gist of his article, however, lies in the question he puts up to the organization managers, and this is one which every independent medical journal in the United States should second.

Dr. Taylor asks the organization managers: "What is your attitude toward independent medical journalism?" The present position of the organization is largely due to the support of the independent medical journals, which has been generously given. But, as Dr. Taylor says, we never see a scintilla of encouragement, not a word of praise; but not an opportunity for censure or disparagement is lost, in the references made by organization journals towards the independent press. Dr. Taylor asks why neither Simmons of the *J. A. M. A.* nor the editors of the state journals are members of the American Medical Editors' Association. Instead of this, the editors of the state medical journals are said to have drawn aside and organized an exclusive association of their own.

This brings us to the crux of the matter. Is this organization, as represented by the *J. A. M. A.* and the state journals, operated on the principles governing the modern trust? If so, this means wielding the power of the combination to crush all opposition, fair and unfair, and gobble up all possible advantages for itself. Dr. Taylor's arraignment shows that so far as the objects of the organization have been developed, no step has been taken which is not within the lines of this program; but whether the development will be carried to the extreme in this direction, remains for the future to declare.

The weakness of all such short-sighted schemes lies in the fact that their aggressiveness develops opposition. Rome spread by the subjugation of the tribes just outside her borders until the opposition hardened into a wall through which she could not break, and the enemies she had made coalesced into masses that finally broke her strength and destroyed her empire.

The belief that freemasonry constituted an organization of this kind developed a public sentiment against this order, which swept the country, nearly drove the order out of existence, and effectually prevented its active operation in any such manner. As to the trusts, every man is their enemy who is not influenced in their favor by self-interest or cowardice.

In like manner, the attempt of any clique to use the American Medical Association in such a manner will inevitably result in failure.

We are far from asserting that any such ring exists, or that any such a program is contemplated by the present Association managers. What we now write is rather a note of warning to them that the impression seems to be gaining ground that this is the case. It is not enough for men to be innocent; they must so conduct themselves that the public will *know* them to be innocent. And if they allow the contrary impression to become prevalent, they have done themselves a wrong, only second to that they would be doing if this impression were based on the truth. Let's all be square.

THAT WINE PROPOSITION

In the March CLINIC we mentioned an alluring offer of a case of wine free, barring $1.85 express charges. We didn't bite, but a friend did—and received his case of a dozen bottles all right, only they were baby bottles and the entire case contained possibly thirty cents' worth of wine, if pure.

Reminds one of the ingenious rascal who offered for a dollar to send a portrait of Benjamin Franklin, the plates having been prepared for the U. S. government by the American Banknote Company. The biters got exactly what was offered—a one-cent postage stamp.

Then there was the party who proffered at the very reasonable price of a dollar each seeds of the wonderful Helion flower, which spread its broad face to the sun, a gorgeous golden bloom measuring several feet in circumference. Fine, but rather a top price for one sunflower seed.

True, a sure way to get rid of fat is to sell it to the soap man; but we doubt the efficacy of the plan of ridding a house of fleas by chaining them to the bedpost and making faces at them. But we doubt if the ingenuity of the swindlers will be exhausted before the perennial crop of suckers fails.

SCOPOLAMINE-MORPHINE IN OBSTETRICS

A report of the work with this anesthetic in the University of Freiburg, where Gauss has delivered 1,000 women under its influence without losing a case, and with a reduction of the infantile mortality. The author, who is an American, now residing at Freiburg, has had special opportunities for investigation

By WILLIAM L. HOLT, M. D., Freiburg, Germany

FOR the following review I am indebted for permission and kind assistance to Prof. Kroenig, director of the University Women's Clinic, at Freiburg, Germany, and especially to his assistant, Dr. C. J. Gauss, who very kindly gave me the publications on the subject and also permitted me to see some women delivered under scopolamine-morphine anesthesia. I am also indebted to the editors of the medical journals (noted in the bibliography), in which the articles here reviewed appeared.

Anesthesia or half-narcosis, by means of scopolamine and morphine, was first introduced into obstetrics by von Steinbuechel. He used smaller doses, however, and obtained only partial relief from pain without any effect on the patient's memory.

Scopolamine has long been used by psychiatrists as a sedative, with excellent results; it is also used together with morphine, to a large extent, as an anesthetic for surgical and gynecological operations by Kroenig, Kuemmel, Rotter and others. But to Dr. Gauss of Freiburg belongs the credit of discovering that, by repeated injections of small doses of these two drugs, a peculiar state of half-consciousness is produced, in which the patient still perceives sensations, including pain, but retains no memory of these sensations whatever afterward. That is, Gauss first induced this peculiar psychical state, which he calls "*Daemmerschlaf*," in women in labor, with the aim of alleviating the suffering of childbirth and removing all later memory of it.

Dr. Gauss characterizes this peculiar state of consciousness as follows: "The word *half-narcosis* does not fully express this remarkable state of consciousness. The patient is in a *state of sleep*, out of which she can be awakened or awake at any moment, but at the same time she shows *amnesia*, characteristic of the psychiatric *Daemmerzustand* (twilight state of consciousness) during the whole period of action of the injections." Hence he substistutes the term *Daemmerschlaf* (twilight-sleep), which I shall accordingly adopt in this review.

Advantages of this Method of Anesthesia

It seems in order, before going farther, to state the advantages offered by this new method of anesthesia. In the first place, it works. Not always, for many reasons

to be discussed later, but still in 78 per cent of Gauss's first 300 cases. If the time suffices before delivery, the method rarely fails to accomplish the desired result.

Second, it gives such relief from the labor-pains that the women beg for more injections. But its greatest value, if time should justify Gauss's claims, lies in the later effect on the mother, namely, in preventing nervous and mental diseases by sparing her the psychic traumata of childbirth. Pregnancy, childbirth, the puerperium, and nursing are well known by psychiatrists to be the chief exciting causes of nervous and mental diseases in women. It is surely also a great service to humanity wholly to remove from women the memory of the most terrible suffering in their experience and with it the dread of having another child. My own personal experience of two cases makes me believe that this natural fear of the suffering and danger involved in childbirth is an important factor in our modern, lamented race-suicide and also in marital unhappiness, by the wife's refusing all sexual intercourse. Hence the scopolamine-morphine *Daemmerschlaf* has a great sociological interest, as well as psychiatrical and obstetrical. It should be thoroughly investigated from every point of view, and if its claims are substantiated, should be accepted as a blessing in obstetrics, rivaling that of ether, and should be adopted, wherever practical, by all obstetricians.

I will state in order, and as briefly as I can, the technic of the method, its effects, if any, on the different birth-processes and the duration of labor, the usual and also the unusual effects sometimes observed on the mother and child, the objections of the critics, together with the results of several other German obstetricians, and finally, Dr. Gauss's report of the first thousand cases of *Daemmerschlaf* at the Freiburg clinic, with his reply to criticisms, together with a detailed account of one successful case from my own observation.

Technic of the "Twilight Sleep."

Two separate sterile solutions are used: one is a 0.03 per cent aqueous solution of Merck's (or Boehringer's) crystalline scopolaminum hydrobromicum, the other a one per cent aqueous solution of morphine. Both should be made with sterile distilled water and kept in the dark in white glass bottles tightly corked. The solutions keep a long time without carbolic acid or other preservative; but should always be examined for turbidity or sediment before using, for such solutions are spoiled and those of scopolamine act very unreliably. Gauss uses a very delicate test for this purpose, which will be given later. With the exception of such spoiled solutions, he denies that the varying effects obtained by injecting the same amount of scopolamine into different women is due to impurity or unreliability of the preparation, and states that different results obtained with the same dose of the same preparation given at the same time show that not the drug but the individual varying susceptibility is responsible. Gauss has had somewhat better results with the scopolamine made by Boehringer of Mannheim, but Merck's from Darmstadt is also reliable.

The first injection is usually given when the pains become really severe and frequent, say every five to six minutes, and last twenty to thirty seconds. One to 1.5 Cc. of the scopolamine solution (0.30 to 0.45 mg.) with 1 Cc. of the morphine solution (0.01) are given subcutaneously in the usual manner. About a half hour later the patient is shown a test object, e. g., a pair of shears; a half hour later she is again asked whether she remembers the shears. This apparently trivial maneuver is actually of basic importance, for on these tests of the "*Merkfaehigkeit*," or capacity to perceive and to "remember" sensations, the dosage is entirely based. As test of the *Merkfaehigkeit* any definite sensation of characteristic nature which is not too often repeated serves. The injections themselves are always so used, as are all the different manipulations to which the patient is subjected, such as pelvic measurements, vaginal or rectal examinations, catheterization, etc.

Besides these test-sensations, which are not given for that purpose, special test-

objects are shown the patient at regular intervals of a half to one hour, a different one each time. When the patient replies that she does not remember the object shown last, this proves that she was in *Daemmerschlaf* when this object was first shown, and no more injections are given until later tests show returning waking consciousness. But if the patient gives a positive reply to the test question or when she does later, the second injection is given, usually without morphine. This second injection, and indeed, all the later injections, are either 0.5 or 1 Cc. sol. scopolamine, according to whether 0.5 Cc. is found sufficient to keep the patient in *Daemmerschlaf* for two hours, or a whole cubic centimeter is found necessary. Formerly morphine was repeated with each injection, but Gauss found that so much morphine had a strongly intoxicative effect upon the child and also greatly injured the labor-pains, especially the expulsive labor-pains, and hence omitted it. Exceptions to this rule will be noted later.

[There have been a few cases reported of this apparent asphyxia of the child with the h-m-c compound, and while these have been exceedingly few and non-fatal, we do not minimize their importance. We have believed that this has been due to overdosing with the morphine and have generally advised the use of half doses of the anesthetic, and where it has been so used no trouble has been reported. Gauss's report seems to fix definitely the responsibility upon the morphine. The second dose may, therefore, wisely be of hyoscine alone, with support by cactin. Note carefully the technic employed by Gauss.—ED.]

The Number of Injections and the Total Dosage

The number of injections required to induce *Daemmerschlaf* varies greatly. In most cases four injections at intervals of not less than one hour, and usually from two to four hours, suffice to induce *Daemmerschlaf* and to sustain it until after birth. The average total dose of scopolamine is 0.75 mg. (1-80 gr.); but sometimes the first dose of 0.3 to 0.45 mg. suffices, and again 0.9 to 1.2 mg. may be required before *Daemmerschlaf* is obtained.

The effective dose can be diminished and so overdosing be avoided, by protecting the patient so far as possible from disturbing sights and sounds. In the Freiburg clinic the ears are plugged with antiphones, the room is kept as quiet as possible, and shortly before birth the woman's head is covered. It is most important in this connection to stifle the cries of the newborn, for if heard, the mother's imagination may construct from them the whole birth-process.

The two secrets of success in this method, besides good fresh preparations, are: (1) to start with a small dose and obtain the desired effect slowly by repeating this small dose; (2) by means of careful and repeated testing of the patient's memory-power to avoid both overdosing, with its untoward results, and also underdosing, which results in breaks in the zone of *Daemmerschlaf* and often in more or less complete remembrance of the birth.

Dr. Gauss gives the following as the most common causes of failure:

1. First and easiest is to try to force the effect by too large doses or too often repeated. This leads to many untoward results, viz.: weak pains, rapid and irregular pulse, sometimes hallucinations and excitation, failure of the abdominal muscles, and deep apnea or even asphyxia of the child.

2. The time remaining after the patient is received is often insufficient to induce *Daemmerschlaf* before the birth; hence it is wiser to promise only alleviation of the pain and not complete removal and forgetting of it.

3. To begin too early in the labor with the injections. This mistake is usually made with primiparæ, who exaggerate their suffering (or are more sensitive!). Primary weak pains indeed are a positive contra-indication to scopolamine. The labor-pains must be strong, frequent and lasting, coming, say, every four to five minutes and lasting half a minute before the first injection is given. In the case I saw, the woman (IIpara) had been in labor two hours and

was having pains every four to five minutes, lasting one-fourth to one-half minute, and felt severe pains in the sacrum and belly before the first injection was given.

4. The last error is to control the dosage, not by the tests of the patient's memory-power, but by her pains and cries. The operator must know that even in true *Daemmerschlaf* the pain-cries continue regularly and also, as in other cases, become stronger toward the birth.

Effects on the Birth-Process and Duration of Labor

This may be considered under two heads: the effect on the uterine contractions, and the effect on the abdominal muscles.

With the aim of studying the effects on the uterine pains, the length and duration of each pain was noted by the hand laid upon the abdomen, and recorded.

The following figures refer to Gauss's first report on his first 500 cases. In this he reports on 493 cases, in which the uterine pains were carefully noted—in 451 no apparent effect, in 8 worse, and in 36 better than before the injections. An assistant, Dr. Schlimpert, constructed curves of the uterine contractions in 128 cases; and from these selected those cases of deepest *Daemmerschlaf* in which the bad effect on the pains was best to be seen, i. e., those cases in which the patient did not answer test-questions at all. In the eight unfavorable cases too much morphine was given, to which the weakening effect may naturally be ascribed. From these figures the conclusion seems justified that scopolamine injections rarely produce an injurious effect of practical importance on the uterine contractions. Unfortunately, in his later report, on the first thousand cases, Gauss does not give further statistics on this point. He says, however, that his birth records enable him to deny, in his clinic, the "excessive prolongation of labor" found by Hocheisen. He hopes later to establish in a dissertation the effects on the labor-pains.

The accessory action of the abdominal muscles was noted in 460 cases. In 444 they came into play spontaneously and only 38 times badly. In the remaining 16 cases the muscles acted only when called upon, and then eight times well and eight times badly. It is rare that a birth occurs through the action of the uterus alone, the abdominal muscles normally assisting; hence their failure to work reflexly in these 16 cases must be laid to the injections. This conclusion is strengthened by the fact that in these very cases too large amounts of the drugs were suddenly introduced. The morphine, it is well known, is especially dangerous in this respect. In the second 500 cases Gauss obtained better results by not repeating the initial dose of morphine, except under one of two conditions: (1) severe pain, due to a generally narrow pelvis or a very large child, when 0.005 to 0.01 is given, and (2) if the patient awakes or is intentionally awakened, then the regular initial dose must be given. Schlimpert found the action of the abdominal muscles good in almost every one of 120 cases of normal *Daemmerschlaf;* but more or less bad in 22 out of 131 other cases where the anesthesia produced deep narcosis. Gauss gives the same rules for avoiding such undesired effects on the abdominal muscles as have been given above, namely, to start with small doses and not give any more morphine unless necessary.

The operation frequency is a good test of any retardation of labor. Of 500 cases only 63 came to operation, making a percentage of 12.6. This agrees closely with the figure 12.8 per cent, reported by Von Ploeger from the Berlin university clinic.

Duration of Labor

It must be remembered in considering this point that only 66 per cent of Gauss's births (in *Daemmerschlaf*) here reported were simple head presentations, while the figures of Veit and Bumm (both without scopolamine) are all based on simple head presentations.

Average Length of Labor

	Primiparæ	Multiparaæ	Both Together
128 cases in Freiburg Clinic	18° 23′	13° 58′	16° 11′
Veit's averages	19½–20°	12°–15°	14° 36′
Bumm's averages	15°	10°	12° 30′

°—hours
′—minutes

This comparison does not indicate that the scopolamine-morphine anesthesia delays the labor to any important extent, if at all. The duration of the second stage in 93 cases of deep narcosis was for primiparæ 3 hours and 27 minutes, multiparæ 1 hour and 47 minutes. Veit's corresponding figures are 1 hour and 45 minutes and one hour, and Bumm's are 1 hour and 30 minutes and 45 minutes, which would seem to show a great prolonging of this stage of labor; but as the total duration of labor in all three was very similar, it seems likely that the differences in the second stage may be explained by different points being taken for the beginning. Considerable allowance must also be made for the fact that too much morphine was given to these cases and that only two-thirds were simple cases. Moreover, to meet still persisting objectors, Gauss adds that if the labor is being apparently delayed in any case by weakening of the abdominal muscles, the effect of the scopolamine may be gotten rid of by omitting further injections, in which case the woman will come out of the *Daemmerschlaf* in a few hours. A slight delay in the birth is not often in itself a serious evil in any case, and so much the less in *Daemmerschlaf*, since the woman's suffering is relieved and afterwards wholly forgotten.

Only a word need be said about the duration of the third stage. It is not prolonged. Of the first 500 cases, in 280 the placenta came spontaneously and in 215 by simple pressure or by Credé's method. In only three was manual extraction necessary, a percentage of 0.6, which compares favorably with those of other authors running from 0.3 to 7.3. The time-periods elapsing between the child and the placenta were as follows: 205 within a half hour; 132 in one hour; only 47 over two hours.

Untoward Effects on Mother or Child

Dr. Gauss gives these very careful consideration, both before and after birth, until his cases were discharged. Of course, the future health of the children could not well be followed; and, unfortunately, his patients were discharged at the end of the first week, so that the involution of the uterus also could not be well determined. He begins with a consideration of the subjective effects on the mother. Scopolamine tends to diminish the secretions of the mucous membranes, and so the women often complain of thirst. With large doses and sensitive patients this may give much trouble; but Gauss has never failed to overcome it by giving plenty of fluids, and has never seen any bad results. He had no vomiting, unless it had already occurred before the injections. Dizziness was rarely complained of, and headache, diarrhea or constipation almost never.

Hallucinations of sight and hearing sometimes occur. The patient may see all things black or carry on a conversation with an imaginary person.

Delusions of the imagination also are noticed occasionally. They occur only in unintentionally deep narcosis, are not kept in memory, and do not disturb the patient.

Objective Effects on Mother

I have already spoken of the effect on the functions and duration of labor. What is the effect, if any, on the heart, lungs and kidneys? In his first essay, reporting the first 500 births under the *Daemmerschlaf*, Gauss says nothing about the *effect on the heart;* but later, in his report on the first thousand cases, he says in reply to Hocheisen's charges that the method is dangerous to the heart, that in his second 500 cases there were 23 women with heart disease, and not one had a cardiac attack. It is undeniable, however, that scopolamine does affect the heart, sometimes causing alarming rapidity and irregularity of the pulse. A woman whom I saw delivered under *Daemmerschlaf*, and whose pulse had risen gradually from 68 at 4 p. m. to 88 at 8 p. m., had an attack of tachycardia about 10 p. m., in which her pulse was very irregular and showed the following variations from 10 to 10.23: 100, 106, 92, and very irregular, 96 and regular, 114, and a minute later 70! Dr. Gauss said he had rarely seen so irregular a pulse in *Daemmerschlaf*, and supposed

the woman had had too much scopolamine. The record of the control-tests confirmed his supposition; it showed that in fact more scopolamine than was necessary for the *Daemmerschlaf* had been given, due to the mistake of the nurse. Gauss was not at all alarmed, however. The woman had no heart disease; but, for that matter, he does not hesitate to give scopolamine to cardiac cases, and his experience with them surely justifies his confidence.

[The action recorded by Dr. Holt certainly justifies the addition of a cardiac tonic, such as cactin, which obviates the danger of accidents of this kind. The cactin strengthens and steadies the heart, and is a general vascular toner. Its action is admirable in every way and greatly adds to the value and safety of the anesthetic.—ED.]

Effect on the kidneys.—In 50 cases the urine was examined before the injections and again twenty-four hours after the birth. In only two cases was the later specimen found albuminous and the first not. Three had albumin at the first examination and not at the second, and the rest neither before nor after. In 100 more cases the urine was tested at the birth and later at the time of discharge. Of these 12 had albumin at the first examination and not later; three had albumin at both times; and 1 no albumin at the first but albumin at the later test. Gauss supposes that the three cases of puerperal albuminuria were not due to the scopolamine but were transitory recurrences of the albuminuria of pregnancy. In any case, the result is favorable to the method.

Eclampsia.—The relation of scopolamine to eclampsia is important here. Three cases occurred in Gauss's first 500, of which two were puerperal; the third had two attacks before the *Daemmerschlaf* and only one after it. Of the seven cases which have occurred in Baden (the duchy including Freiburg) in the last year and a half only these three cases, and one other without *Daemmerschlaf*, have recovered, a fact which suggests a possible good effect of the scopolamine. The hope that scopolamine might prevent eclampsia has, however, not been realized. It certainly reduces the excitability.

Effect on the Puerperium.—As scopolamine diminishes the secretions it might naturally be feared that lactation would be interfered with. Gauss studied this in 200 cases, and compared them with 200 other cases delivered without scopolamine during the same period. The results are best presented in the following table:

	Births with Scopolamine	Without Scopolamine
Nursed independently.....	134	137
Nursed with extra feeding....	15	8
Could not nurse at all.....	51	55
Total able to nurse.....	149	145

The result is certainly favorable to the method.

The involution of the uterus, unfortunately, could not be followed, as most of the women had to be discharged on the seventh day.

Effect of Anesthetic on the Child

Here must be considered separately: effects in utero, effects seen immediately after birth or during the first few days, and also later effects so far as it is possible to trace any. Gauss declares that scopolamine does the child no injury whatever, in utero, but admits that one of the five still-born children which he had, died indirectly because of the *Daemmerschlaf*. To quote his own words about this: "I was occupied with the manual extraction of a placenta while the breech presentation, watched by a nurse pupil—although badly watched—proceeded in an adjacent bed. Since the woman was in scopolamine-morphine *Daemmerschlaf*, she did not notice the unexpectedly quick birth; I myself first made the extremely unpleasant discovery on turning back the bedcovers that the child which was certainly still alive when I began to disinfect my hands lay dead and halfborn between its mother's thighs." This accident strongly emphasizes the fact that a birth under scopolamine-morphine is dangerous and requires much more careful watching than one without. It seems to me to prove the method not safe for large hospitals where each case cannot have the constant supervision of a reliable nurse

or physician or for private practice except under the same stringent conditions.

Children born in *Daemmerschlaf* often show a peculiar state of intoxication which is undoubtedly due to the drugs used. It is most often seen when the morphine has been given repeatedly, but may also be caused by the scopolamine alone when too much is given. A child born very soon (within ten to thirty minutes) after an injection of scopolamine is often oligopneic, and oftener when the scopolamine is overdosed. Gauss terms the state oligopnea: the child breathes only once, then lies quiet, with shut eyes, breathing occasionally, and cyanotic, and only gradually breathing at lesser intervals until at the end of fifteen or twenty minutes, if not treated, it begins to breathe normally. Gauss gives the following interesting description: "The child opens its eyelids spontaneously, but only to let them fall again slowly as though tired. The width of the pupils varied, so that no conclusion could be drawn as to the depth of the narcotic effect. The following is characteristic of this drunken-like condition: the child reacts strongly to stimuli, but the reflex action of the muscles is often suddenly interrupted before its completion as though the carrying out of the movement were suddenly forgotten. Meanwhile, the heart-action is clearly dependent on the kind of breathing; after each breath the pulse becomes progressively slower, even to 60 beats, until the next breath, when it at once rises again to normal. This alternation continues repeatedly in ever shorter intervals until finally normal regular breathing is established. After this the child shows no further deviation from the normal."

Dr. Gauss at first resuscitated these children as though asphyxiated, but by careful experiments discovered that it was not necessary, for many children came out all right in fifteen to twenty minutes without any treatment. *Light massage of the heart is the measure recommended as most efficacious and simple.*

How to avoid oligopnea.—This may usually be done by giving only 0.3 to 0.45 mg. scopolamine with 0.01 morphine at the first injection and only 0.15 to 0.3 mg. scopolamine *without morphine* later. Of 50 mothers so treated only 5 had oligopneic children, and these 5 were necessarily given the injections too rapidly: 1.2 to 1.5 mg. scopolamine in two to six hours.

Sixty-five of Gauss's first 500 children were born asphyxiated—13 per cent. He says that 47 of these were easily otherwise explained, but in 18 no satisfactory explanation was found. He saw no evidence that they were due to scopolamine-morphine. In some cases the mother was not yet in *Daemmerschlaf* when the child was born; in all the intoxication characteristic of scopolamine was lacking. Five of these children died. Two died of aspiration pneumonia, two of cerebral injuries, one never breathed. I thought some suspicion must rest on the scopolamine in this last case, but Dr. Gauss assures me that he is certain the scopolamine was not to blame in this case, although it may have been in others. Gauss gives the following details: "I came to this case when the nurse had continually held the large fetal head back for an hour in order to save the perineum. When I noticed meconium, I was suspicious, and found a very irregular and slow fetal heart; accordingly, I let the fetal head come out at once, but found the above severe condition of the child from which it did not recover."

Gauss had only half as many asphyxiated children in his second 500 cases, the percentage falling from 12.8 to 6.3; and the mortality was 3.5 per cent less than during the previous ten years at the Freiburg clinic. A table of the infant mortality will be given later under the report on the first thousand births.

The opponents of the *Daemmerschlaf* have brought up the question: May not such strong drugs as morphine and scopolamine when introduced into the child's system in utero have an injurious effect weeks or even months after birth? It seems to me that it would be wholly irrational to ascribe any troubles that a child might have long after birth to the drugs instilled before his birth, which must have been excreted within the

first twenty-four hours. From inquiries made among private patients Gauss has not learned of any symptoms in the children during the first year which could be laid to the *Daemmerschlaf*. Prof. Hoche, Director of the *Psychiatrie Klinik* at Freiburg, says it is impossible to suppose that any later bad effects from the scopolamine-morphine anesthesia can occur in the child.

The Opposition to the "Daemmerschlaf"

Like every new discovery of importance in medicine, the scopolamine-morphine *Daemmerschlaf* has met strong opposition; and I must mention some of the objections that have been brought forward by Dr. Hocheisen, assistant to Prof. Bumm in the *Koenigliche Charite* at Berlin. He claims that scopolamine is unreliable and unsafe in general and particularly in psychiatry and surgery: "Death has been observed after doses of only one milligram. Many untoward symptoms, such as dizziness, headache, disturbances of sight and hearing have followed dropping of scopolamine into the eye." Hocheisen adds several statistics showing deaths from scopolamine: one of 4,000 cases collected by Roith, with 18 deaths, only three of which received more than 1 mg. Finally, he quotes a case from Toth where death followed a dose of only 0.3 mg.! Of course, similar objections could be brought against any of the alkaloids which are fatal in large doses, and rarely in ordinary doses, to persons of extraordinary susceptibility. Still, such statements, if left unanswered, would create a strong prejudice against any use of a drug which seems to be so fatal.

Gauss meets these charges as follows: He first points out that the great strength of the drug is in itself no valid objection, for one can just as easily get used to giving tenths of a milligram of scopolamine as centigrams of morphine. He then admits that scopolamine does not as yet possess the purity of most of our drugs [A point upon which we have insisted and do insist.—ED.], but quotes Prof. Kionka of Jena as saying that the preparations of Merck and Boehringer are quite pure and uniform enough to be used without any objection in medicine. He rebuts the bad results of scopolamine in psychiatry by the recent favorable report of Bumke from the *Freiburger Psychiatrie Klinik*. This report is based on abundant material, and is of great value to anyone who thinks of using scopolamine. On the average 16 patients were given injections daily. "The single dose rarely exceeded the maximum of 1 mg., never exceeded 2 mg., and usually was 0.5 to 1 mg. This was not because the unsafety of the drug forbade larger doses, but because its reliability made them unnecessary. No severe disturbances were seen."

He also quotes Bumke to refute Hocheisen's charge of danger to the heart. Among many thousand cases Bumke noticed no dangerous effects on the circulation. To be sure, in 55 per cent the pulse-rate fell off 4 to 10 beats (never over 20), and in 25 to 30 per cent it was accelerated and then slowed, but only once was the pulse irregular, for a time, in a high-grade arteriosclerosis. Gauss himself can point to 23 cardiac cases in his last 500 delivered under scopolamine, without accident. He does not consider heart disease a necessary contraindication to the *Daemmerschlaf*.

Finally, concerning the mortality from scopolamine, Gauss declares that there is such a complete difference between the surgical scopolamine-morphine narcosis and the *Daemmerschlaf* in obstetrics that statistics on the former cannot at all be applied to the latter. So far as he can find out, all the deaths from scopolamine-morphine have occurred in full narcosis. Nevertheless, many surgeons and gynecologists—Kroenig, Kuemmel, Rotter, and Franz—use scopolamine to a great extent before giving ether or chloroform. Less ether or chloroform is needed, and the administration is made much easier for the operator and pleasanter for the patient, because the feeling of suffocation is thereby avoided.

Source of Hocheisen's Failures

I think it is not worth while to give here the results of Hocheisen, because they were obtained by a complete disregard of the fund-

amental principle in Dr. Gauss's method: to base the dosage solely on the repeated tests of the memory-power; and his failures offer no argument whatever against Gauss's method, but only serve to emphasize the necessity of a careful and correct technic. For Hocheisen says expressly that he omitted entirely to test the state of consciousness, "because our cases of *Daemmerschlaf* showed such varying phenomena that out of our cases at least I cannot establish such fine (subtle) physiological-psychiatrical observations as a rule;" and accordingly he continued his injections until the patient ceased to feel the labor-pains.

Another cause of Hocheisen's failures was doubtless the use of bad preparations. [There can be no doubt in the mind of any man who studies this question carefully that many, if not most, of the accidents are due to an inferior drug. Cheap commercial scopolamine is *not* safe.—ED.] A sample of the scopolamine solution used at Berlin was sent by him to Dr. Gauss, who tested it on ten patients. This solution was already turbid when received, and as it came promptly, it is fair to presume it was so when used in the Berlin clinic. As Gauss expected, it had untoward effects, being strongly narcotic and also causing the following bad results: one case of deep coma, with injury to uterine and abdominal contractions; three severe post-partum hemorrhages, and one deeply asphyxiated child; strong excitation four times; vertigo once, and vomiting once. Gauss, Bumke, and Kionka all warn against the use of any but clear, fresh solutions of scopolamine.

Gauss controls his solutions by the following test for apoatropine (the dangerous compound probably formed in turbid solutions), which Dr. Otmar G. Kessel of the Jena Pharmacological Institute (Prof. Dr. Kionka, Director) has published:

The following reports have been made on the *Daemmerschlaf* by other authors, which I have collected in the table below:

Author	Number of Cases	Dosage S—Scopolamine M—Morphine	Judgment in General	Effect on Labor Pains, Duration of Labor	Hemorrhage Postpartum	Effect on Children Norm.	Oligopnea	Asphyxia	Died in Birth
Ziffer	31	0.3mg S. 1cg M. 1-3 times	Good, safe	In 33 per cent, cases were shorter and rarer. Abdom. muscles refused sometimes. 16 per cent births delayed.	1			5	1
Steinbuechel	20	Same	Good	No unfavorable effects seen.	None reported	All			
Wartapetian		0.3mg S. 1cgm M. up to 5	injections.				Fifty per cent born "stupefied." Ascribes it to the morphine.		
Reining	36	Same	Safe	Pain well relieved 24, mod. 4, only a little 3 times. Birth often delayed.			Child not threatened, with careful procedure and good preparation.		
Weingarten	Over 50	Same	Good. No injury	Pain diminished in 45. Thinks it regulates pains, and accelerates the birth.			No injury to child.		
Hocheisen	100	Small, of scop. q. s. Total No. dose cases 0.3mg 14 0.45mg 30 0.5mg 31 0.6-0.9 21	Good result usually, but dangerous in private practice.	18 neg. on pain, 21 mod. reduced, 55 excellent effect, 6 no pain at all.	5	67	18	15	1

REPORTS ON DAEMMERSCHLAF BY OTHER AUTHORS

A drop of a dilute solution of potassium permanganate will in the presence of even a very slight trace of apoatropine give a brownish-yellow color, due to the precipitation of manganese. This seems to me a simple and valuable test.

Gauss's Report of a Thousand Cases of Daemmerschlaf

I have anticipated a great deal of this, but will mention the most important points not yet given.

All remarks, unless otherwise noted, will apply to the entire thousand cases. *Not a single woman died in such a way that the blame could be laid upon the method.* Only one death occurred in the second 500, and that was due to rupture of the uterus.

Hemorrhage.—In reply to Hocheisen's charges that the scopolamine-morphine injections increase danger of post-partum hemorrhage, Gauss measured the blood lost in the third stage in 363 successive cases with the following satisfactory result, classification being after von Winckel:

	Loss of Blood	No. of Cases	Per-centage	Average am't lost
Physiological ...	0- 500 g.	337	92.8	190 g.
Slight	500-1000 g.	23	6.3	645 g.
Severe	1000-1500 g.	3	0.9	1255 g.
Dangerous	Over 1500 g.	0	——	——

"The average loss of blood for the 363 was 277.7 g, which must be considered according to von Winckel a small physiological loss."

The birth of the placenta is shown in the following table:

Spontaneous	510	51	per cent
By light pressure or Crede	481	48	" "
By manual extraction	4	0.4	" "
Ditto in Cesarean section	5	0.5	" "

These figures are certainly a favorable answer to the charges that the method causes trouble with the third stage of labor.

Morbidity of Mothers.—This could be determined only by a special investigation. The fact that of 330 patients taken at random who got up by the fourth day—the usual time in non-operative cases—only 1.7 per cent had a temperature of over 38.5° C. (101.3° F.) indicates that the morbidity was not higher than usual.

Duration of Birth.—Not yet worked out for the second 500 cases. Any considerable prolongation, however, would show in an increased frequency of operation, which is not present. In the first 500, forceps were applied 49 times, in the second, only 25 times. The total figure, then, is 7.32 per cent, which is not much higher than that in Fehling's clinic (Strassburg) of 5.29 per cent. Indeed, the *Daemmerschlaf* often enables one to avoid an operation, which most physicians would otherwise perform to satisfy the anxious relatives and suffering mother, because the successful operator with the *Daemmerschlaf* does not mind the patient's cries nor the family's remonstrances, being sure that after delivery she will have forgotten all. The statistics made public by Bokelmann in the Berlin Gynecological Society state that in his private practice of 335 patients he had applied forceps in 40 per cent, and that 20.8 per cent of these were "*Erloesungszangen*" (rescue-forceps), without any other indication except to relieve the patient's suffering. In contrast to this, Kroenig and Gauss have delivered 163 private cases without once resorting to the "rescue forceps."

Effect on the Child

Gauss says: "In support of my statement, denied by Hocheisen, that if by careful testing of the *Merkfaehigkeit* one avoids overdosing with scopolamine, and also gives very little morphine, one can wholly avoid untoward effects upon the newborn, I give the following comparative statistics, which show the great diminution in such untoward results in the second 500 cases with improved technic and dosage:"

EFFECT OF TWILIGHT SLEEP ON THE CHILD

	Normal per cent	Oligopneic per cent	Asphyxiated per cent
First 500 cases	62	23.5	12.6
Second 500 cases	78.6	12.7	6.3
Total averages	70	18.1	9.6

Mortality of Children.—This may best be seen in comparison with the mortality in the ten years antedating the following table:

COMPARATIVE MORTALITY WITH AND WITHOUT THE ANESTHETIC

1895-1904 without scopol. per cent	First 500 cases per cent	Second 500 cases per cent	1,000 to-gether per cent	Remarks
5.8	1.0	2.0	1.5	were dead-born, and of these
1.5	0.2	1.2	0.7	were dead before birth,
4.3	0.8	0.8	0.8	died under observation,
4.0	1.6	1.2	1.4	died in the first 9 days after birth; of these
0.3	0.8	0.8	0.8	died of a birth-injury,
3.5	0.8	0.4	0.6	died of other causes.
49	13	16	29	died in all.

It is indeed very surprising that the mortality under scopolamine has been only one-third of its previous figure. Gauss does not claim that scopolamine is the chief cause of this great decrease; but Prof. Aschoff thinks that the great diminution in deaths during birth (21.5 to 4) may be due to the benumbing effect of scopolamine upon the respiratory center, which prevents so frequent aspiration of mucus with resulting fatal pneumonia.

Two Cases Seen by the Author.

Thanks to the kind permission of Prof. Kroenig and Dr. Gauss I had the good fortune to see two cases delivered under scopolamine-morphine at the Freiburg clinic. I will close this review with an account of them and my own conclusions on the method.

The first patient was given the first injection only half an hour before the delivery, not being received earlier into the hospital, and so obtained no *Daemmerschlaf*, only a lessening of her pain. She remembered the details of the birth when questioned ten minutes later; the child was quite normal.

The second case was quite successful, however. The woman was 32 years old, multipara; pelvis normal; a simple head presentation. Labor-pains began at 2 p. m., Feb. 16. At 4 she complained of strong pain in the sacrum and body; the pains were coming every four to five minutes, were fairly strong, and lasted fifteen to thirty seconds. Accordingly, an injection of 0.3 mg. scopolamine with 0.01 Gm. morphine was given at 4:30. The fetal heart, at this time, was beating from 144 to 156; mother's pulse 72, respiration 24, temperature 98.2° F. I wish to state here that a very complete record is kept on a large blank by the nurse, including beside the points above mentioned, the origin of the scopolamine and the date of its preparation (in this case from Merck and made up Feb 13), point of injection, memory of it thirty minutes later; then the subjective condition and remarks of the patient; and finally the objective condition, whether she sleeps between pains, the color of the face, influence on labor-pains, state of consciousness, hand trembling or other untoward signs, and also examinations and the course of the birth. All these details are to be filled in every hour in most cases, and this is conscientiously done. Dr. Gauss tells me he found it absolutely essential for the nurses to keep such a record in order to obtain the right dosage.

A second injection of scopolamine alone was given, 0.3 mg. at 5:30 p. m., which was remembered at six. At 5:45 p. m., however, she was sleepy, and at six had a reddened face (a scopolamine symptom), and gave no expression of pain; the labor-pains were good, coming every four to seven minutes and lasting thirty seconds. Pulse 78. A ruler shown at six was remembered at 6:30 p. m.; hence a third injection was given at 6:45 p. m. This also failed to induce *Daemmerschlaf*, and a fourth was given at 8:35 p. m., which was effective until after the birth, at 10:50 p. m. The record was doubtful whether she remembered the last injection or not; but her confused speech, red face, lack of pain, and very rapid pulse (rising at 10:18 p. m. to 114) showed clearly that she was under the full effect of the drug—indeed, that she had had more than necessary for *Daemmerschlaf*. A total of 1.2 mg. scopolamine was given within four hours, because the patient was so resistant to the effect. In spite of this large dosage and strong effect finally upon the mother, the child showed no oligopnea, being quite normal, and the woman suffered no subsequent injury.

The labor-pains and abdominal muscles were affected as follows: at 9 p. m. the pains came every three to five minutes, lasted one-half minute and were strong, but at ten they came every five to six minutes, and were weaker. The woman would then not use her abdominal muscles well and the pulse varied greatly, now over 100, now under 70, and for a time very irregular. These bad effects on the heart and the uterine and abdominal muscles Gauss agreed with me in ascribing to

overdosage with scopolamine. Still, the child was delayed little, if at all, coming before 11 p. m., or less than nine hours after labor began. Gauss says of this case: "The effect on the heart confirms the experiences of Hocheisen obtained when the *Merkfaehigkeit* was not properly tested. In this case it was tested only by the nurse, and not quite successfully. This case only shows the necessity of keeping a careful record of each control test of the *Merkfaehigkeit* (memory-power).

The mother, when questioned twenty-five minutes after the birth whether her child would come soon, replied confusedly, "I don't know," and thought it was still noon. I learned later from Dr. Gauss that she thought the birth of the placenta was that of the child. On closer questioning it was discovered that she thought she remembered the birth, because her abdomen suddenly became empty. More exactly she could not picture to herself. The placenta came spontaneously 50 minutes after the child, and was followed by a slight hemorrhage of 310 grams (about 10 ounces). There was no fever during the puerperium; the pulse ran from 70 to 86, and was not irregular. She got up on the second day, and was discharged on the ninth. The child weighed 2950 grams (6 1-2 pounds), was born quite normal, was nursed and also received modified milk, and regained its birth-weight on the ninth day, when it was discharged well.

I wish to say in closing this review that I am personally convinced of the great value and merit of this scopolamine-morphine anesthesia in obstetrics, which I think might conveniently and deservedly be called "the Gauss twilight sleep;" and I hope that our American obstetricians will give the method a careful trial, conscientiously following the directions of Dr. Gauss.

Note: Since writing the above I have learned that Dr. Lanphear of St. Louis and Dr. Abbott of Chicago are using the *Daemmerschlaf* with success, but employ pure hyoscine instead of scopolamine. Dr. Gauss says that here in Germany the scopolamine is purer than the hyoscine. He has tried the hyoscine of Burroughs and Wellcome, England, with fair results, but has much more confidence in the scopolamine of Boehringer or Merck. However, the conditions may be quite otherwise in America.

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We congratulate the readers of CLINICAL MEDICINE (and ourselves) upon securing this splendid paper "right from the firing line," and from the pen of a man like Holt, who has studied this matter right on the ground, and whose "word is as good as his bond." Gauss has had the largest experience with hypodermic anesthesia of any man in the world, and has most carefully perfected its technic. His results are an effective and unanswerable argument in favor of this expedient.

Several things are noteworthy: First, that Gauss realizes what some of our American wiseacres have scoffed at—that the purity of the drug used by him is of the utmost importance. He clearly shows that many, if not most, of the unfavorable results and accidents are due to the use of decomposed scopolamine and to overdosage. As Dr. Holt puts it, "he admits that scopolamine does not as yet possess the purity of most of our drugs." That is the point upon which we most insist and is the basis of our claim, that the surgeon and obstetrician should invariably use a pure hyoscine, which, while it may be *chemically* identical with

the commercial scopolamine on the market, therapeutically is not, and can be depended upon to be free from dangerous impurities, like apoatropine. Upon this point again we insist, with all the strenuosity we possess. Gauss tested every sample which he used. The average practician cannot do this, but *must* be *assured* that the drug which he uses is pure and safe.

Another important point is that the apparent asphyxia, really, as Gauss calls it, oligopnea (little breathing), is mainly due to giving too much morphine—in other words, morphine poisoning. This being understood, the remedy is easy—simply to give less morphine. Massage over the heart is the remedy applied by Gauss. Furthermore, the addition of the cactin is justified by experience and observation.

The testing of memory-power, upon which Gauss bases his dosage, is simple enough, and will be a valuable pointer for American physicians.

The results in this series of cases leave little to be desired. An expedient by which 1,000 women were delivered, without a death, and which reduced the mortality of the children more than 3 per cent, beside avoidance of the psychical shock and physical dangers inherent upon a general anesthetic must command respect. Personally we believe that in the improved form, the h-m-c compound, this anesthetic and analgesic will prove one of the *great* things in medicine.—ED.

THE TREATMENT OF NEUROSES*

The general principles and special measures governing the treatment of the neuroses. Reprinted from the Waugh-Abbott "Text-Book of Alkaloidal Practice."

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THE extent to which fecal and other forms of autotoxemia are responsible for the causation of disease is as yet far from being determined. We cannot assign it as a cause of the maladies in question more than as a suggestion for consideration and observation; but we may assuredly assume that under no circumstances can the retention and decomposition of the bowel contents be regarded as beneficial, or indeed as a matter of indifference. Let us commence our treatment, then, by thoroughly emptying the alimentary canal, disinfecting it, and keeping it clear and clean throughout the course of the attack.

This may be accomplished by administering calomel, gr. 1-6, every half hour for six doses—if the stools are light-colored and offensive—followed by enough effervescent saline laxative to produce copious watery stools, aided if necessary by colonic flushes. If the stools are dark and offensive, instead of calomel give podophyllotoxin, gr. 1-12 every half hour. If the stools are not offensive the saline alone may suffice, but as a rule the calomel is advisable. Once completely emptied, the bowels must be kept clear by similar means, a morning dose of the saline usually sufficing, aided by an evening grain of calomel occasionally, perhaps once a week, throughout the duration of the malady.

How to Disinfect the Bowels

Disinfection is best attained, after thorough cleaning out, by the use of the sulphocarbolates. If the bowels are infected or diarrhea is present, give zinc sulphocarbolate, one to five grains, every one to four hours, lessening the doses after the stools

become odorless to just enough to maintain this effect. If acidity is present, or the stomach is irritable to the zinc, substitute the soda salt in similar doses or double those of the zinc. But if there is need of tissue reconstruction use the calcium sulphocarbolate, also in double the dose of the zinc. In most cases the combination of all three, with bismuth salicylate, is preferable, as being non-irritating, and the bismuth offers a ready mode of testing the antisepsis, as it no longer blackens the stools when sulphides are not formed by decomposition of fecal matter.

The same considerations apply, word for word, to deficiencies in the work of the eliminant organs. The retention in the blood of substances that should have been excreted by the kidneys, liver, lungs and the skin, cannot but exert an injurious influence on tissues already weakened by disease, and which require for the restoration of health a full supply of the best and purest nourishment instead of being further debilitated by saturation with toxins. The estimation of the work done and that left undone by each of the great eliminant organs is an imperative preliminary in the study of all these maladies.

The way is thus cleared for a study of the patient's nutrition and the application to the case, not only of the rules of diet, but those of personal hygiene in general. The success of the physician will largely depend on his knowledge of these rules and their practical application to each of his cases. We could scarcely forgive the negligence of the physician who would leave his patient to poison his blood by inhaling the exhalations from decomposing organic matter in his cellar, any more than we would if he left him to absorb toxins from his bowels.

Measures of General Value

Certain measures will be found to be advocated by all who have given special study to this group of diseases. We refer to massage, hydrotherapy, graduated exercises, the applications of heat and cold and the various forms of electricity. These measures are purely empiric, none of them being applied to known pathologic conditions because of the known effects these agents have in counteracting those conditions. The value of these agents, however, has in a number of instances been sufficiently proved, and as methods of exercise and of combating muscular degeneration they are too valuable to be neglected. A little of value may be found in various special works as to the selection from among these means, of special applications to particular instances, but there are few exceptions to the general rule that each new case demands separate experimentation before the best applications in this particular instance can be determined.

The ignorance of the profession as to the application of drugs in this class of diseases is due to the universal neglect of applied therapeutics and the consequent lack of accurate information as to the effects of drugs upon the healthy and diseased bodily functions. There is but little, therefore, that we can suggest today, beyond indicating the lines along which clinical experimentation may advantageously be pressed.

Selection of Diet and Digestive Aids

The diet should be arranged with the utmost precision. A due supply of each of the essential elements of a perfect diet should be secured, proteids, carbohydrates, fats, salts, and water being duly provided. Fetor of the stools indicates restriction of the proteids, flatulence with other evidences of starch indigestoin demands limitation of carbohydrates; fatty acids in stools or vomit the discontinuance of free fats. Gastric indigestion demands hydrochloric acid, intestinal debility, diastase, and the active principles of bile and of the pancreatic secretion are needed far more generally than is comprehended. Either of these digestants initiates its digestive process, and as the secretion is automatic, the secretory glands will complete their task if the food is suitable in nature and form, and not excessive in quantity. In general there is innutrition, and the indication is

for small quantities of easily digested but nutritious food, always warm, to be thoroughly masticated and insalivated, and repeated every four hours. All iced drinks and foods richly seasoned, condiments, alcohol, and usually all caffeine-bearing beverages, are to be interdicted. Milk, eggs, fish, oysters, fresh-fruit juices and simple carbohydrates, like rice and the modern partly digested breakfast foods, are usually preferable. Allow for due variety. Sometimes the need for thorough mastication is only met by the use of hardtack, or oatmeal scones. Milk should be taken warm. Clam broth and chowder, and turtle soup, are easily digested and nutritious, readily assimilated and well suited for weak digestion and low nutrition. Chicken and turkey, sweetbreads, brains, all game except water fowl, and even beef, are useful also, but probably more cases occur where the system is poisoned with an excess of proteids, undigested, than from a deficiency in these articles. A daily supply of raw-fruit juices containing the still living elements of plant life is advisable; and when milk can be had warm from the cow it is preferable. Individual preferences and appetites are always to be considered.

The digestive forces may be reinforced somewhat by local feeding. The colon may be utilized for the absorption of foods after it has been cleansed, throwing about eight ounces of semiliquid food, with artificial digestants, into it twice a day. The vagina absorbs foods and medicines better. The skin absorbs fats, and rubbing with hot cod-liver oil has afforded valuable assistance in treating many debilitated conditions.

Hot brine baths and rubbing with towels dipped in salt water and dried are useful measures to attract the blood to the surface where it may be oxidized. These may be repeated daily, before the patient lies down to sleep.

Much may be done in the way of preventing paroxysmal attacks by attention to the details of personal hygiene—dressing in wool next the skin, and hardening by the daily application of cold water to the skin, by prescribed exercise, and the avoidance of exciting causes. Anstie insisted that a neuralgic required more food than others, and that a layer of fat beneath the skin protected the nerves.

Attention to the Kidneys and Liver

Especially imperative is it to ascertain the quantity of solids excreted daily by the kidneys. If this falls constantly far below the normal quantity, efforts should be made to raise elimination. If the vascular tension is not too low, the best remedy here is veratrine, gr. 1-134 three to seven or more times a day, or three times this dose at bedtime. All nitrates and nitrites seem to stimulate the excretion of urinary solids, sodium nitrite being especially active, and these may be employed when veratrine is irritating to the stomach. Sodium nitrite may be given in doses of gr. 1-6 every two to four hours. Colchicine, gr. 1-134, increased to slight irritation of the stomach and bowels and then given in doses just below the irritative point, is useful for the gouty and plethoric. The writer has obtained excellent results in this particular from a combination of phenocoll and piperazin, with abundance of water.

Even more directly indicated is the use of boldine, by which the production of urea by the liver is stimulated. Of the granules containing a milligram each, seven daily form an average adult dose. Since urea is the natural diuretic of the body its production seems in the line of true "physiologic" therapeutics.

Arsenic and Zinc Phosphide

The special effect of arsenic is probably the production of fatty degeneration. During convalescence from acute infectious diseases, such as pneumonia or rheumatism, it seems most probable that arsenic will favor the process by which the debris of these diseases is melted down and carried out of the system, instead of being allowed to remain as a clog to the vital functions and a menace to the future health. Whenever a similar indication arises in any malady, the use of arsenic is justifiable; beyond this

it does not seem applicable excepting when required to combat certain infections, such as that of malaria, and of an, as yet, undiscovered cause of pernicious anemia. Give small frequent doses till the eyelids itch, then keep just below this point for a month.

The remarkable effects following the use of zinc phosphide as a remedy for zoster induced the writer to present the following proposition—that wherever a centric nervous degeneration is indicated by local cutaneous manifestations, zinc phosphide, by improving the nutrition of the diseased centers, will act as a prompt and effective remedy for the disease. A number of applications of this remedy have confirmed the correctness of this proposition. There is room for wide experimentation, however, before the limits of its applicability will be established; and the group of diseases now under consideration offers many opportunities for such tests. Recognizing the tremendous metabolic power of this drug, and the possibility of harm resulting from its continuous administration, it is our custom to advise zinc phosphide to be given, gr. 1-6 four times a day, for one week out of each month, the remainder of the month being supplied by the use of neuro-lecithin, another agent whose power of improving the nutrition of undeveloped or degenerated tissues is attracting attention. Whether the influence of these remedies is confined to nervous degenerations or is also applicable to similar lesions of muscular fiber, remains to be determined.

Nuclein, the Sulphides and other Remedies

It is now fully established that the administration of nuclein increases the number and activity of the phagocytes, but the exact bearing of this observation upon clinical practice remains to be ascertained. There is a mass of testimony, however, as to the value of this remedy in all diseases depending upon invading microörganisms, animal or vegetable, verifying the views of Metschnikoff and Vaughan. Nuclein should, therefore, be administered in full doses in every case believed to be due to such causes. Of the standard solution a dram each twenty-four hours is the full dose; beyond this the leucocytes quickly diminish in number.

Another set of observations has shown that in the sulphides we possess remedies powerfully destructive to invading microörganisms and yet harmless to the human body. The sulphides of calcium and of arsenic, if administered until the body is so saturated that the odor of these drugs is exhaled with the breath and the perspiration, are believed to render the body for the time uninhabitable by any pathogenic organism. In a number of infectious diseases this has been well proven; in none has it been disproven. The principle is applicable in all infections. Give calcium sulphide 5 to 40 grains a day; arsenic sulphide, gr. 7-67 a day. Saturation is denoted by exhalation of sulphureted hydrogen by the skin.

Three remedies are known to exert specific effects upon muscular fiber, namely, quinine, caffeine and veratrine. The local effect of dilute solutions of either, injected into the substance of diseased muscle, seems a legitimate subject for study. Possibly some of the constituents of healthy muscular fiber, thus administered, might prove a valuable reëinforcement to the waning powers of the diseased part. The beneficial effects obtained by applying nutritives, such as raw blood and egg albumen, to the surface of sluggish ulcers, seems to warrant this suggestion.

Excepting to combat anemia there seems to be no good indication for the use of iron. That universal stimulant, strychnine, by arousing the reserved powers of the system, may produce some temporary apparent improvement. The other so-called tonics are useful if they are indicated; but the rash administration of powerful tonic mixtures, without any special reason for the choice of any one of them, or of the whole, excepting that the patient is weak, is a therapeutic method well calculated to bring the art into contempt. Too often these remedies are employed to increase the appetite, while the bowels are clogged and the kidneys failing from over-work. Iron is best given in the drinking water,

and the addition of nuclein solution enables the body to appropriate and retain iron that would otherwise pass through and be lost.

Special Treatment for Special Conditions

Hemorrhages are best met by the quick application of atropine, which dilates the cutaneous capillaries and abstracts the blood from the bleeding points. Give a full dose, gr. 1-67, hypodermically, and repeat in half an hour if necessary. The vascular tension should be restrained by full doses of veratrine, gr. 3-67 at once, hypodermically, repeated as needed, and by quickly lessening the bulk of the blood by venesection, or depleting enemas of saturated salt solution, cold, thrown into the bowel. The bowels should usually be quickly moved by elaterin, gr. 1-12 every hour. Fever may be restrained by the defervescents, veratrine, aconitine and especially gelseminine, either of which should be given in small doses rapidly pushed to full effect. Of gelseminine give gr. 1-250 every ten to thirty minutes till the eyelids droop. The simultaneous or subsequent administration of the heart tonics, digitalin or cactin, or the vital incitant, strychnine, may be indicated. Give dose enough—it is not desirable to fetter the practician by too close advice as to dosage when cases require such various quantities.

Many times the influence of absorption stimulants will be required, to remove the debris of hemorrhages and inflammations. We have long employed the following and come to look upon it as the most effective agent of this nature in our experience: Mercury biniodide, gr. 3-67, arsenic iodide gr. 1-67, iodoform and phytolaccin or stillingin gr. 1-2 each; all to be given four to seven times a day, stopping and reducing the dose whenever the eyelids begin to be irritated, but continuing till the need no longer exists. In syphilis nothing so quickly puts a stop to the destruction of nerve tissues; in this and other maladies nothing so powerfully stimulates absorption. The mercury is the most powerful of antisyphilitics and absorbents; iodine aids in both and renders mercury more prompt, besides carrying it out of the system certainly; arsenic iodide is the most active of iodine preparations, and by irritating the eyes makes them a safety valve, affording the plainest indication of the beginning of toxic action and the necessity of diminishing the doses; iodoform aids the iodine effect and subdues any gastric irritation caused by the other ingredients. The use of the vegetable absorbents is based on theoretic grounds which may or may not be true. They are added with the idea that by stimulating the lymphatics they may carry off the debris and leave to the mercury and iodine the duty of combating specific infection; besides, experience has indicated that they add efficacy to the combination. The whole combination, in quickness of action and efficacy, far exceeds potassium iodide, alone or with corrosive sublimate.

Counter-irritation is often of value. The most decided benefit is obtained from the actual cautery or moxæ, but few patients will care to bear the pain. The application of lunar caustic to the skin in narrow lines is probably the best, as the effects are far more decided and penetrate deeper than those of blisters. The resultant dry eschar does not interfere with subsequent applications so much, or constitute a source of discomfort or infection.

For the Relief of Pain

Acetanilid is useful to quell painful attacks in robust individuals, severe, with or without fever; giving gr. 1 to 5, guarded with caffeine and accompanied with soda, three doses an hour apart. If this does not afford relief, other remedies are preferable.

Antipyrin succeeds best in the lightning pains of ataxia, and is less depressing than acetanilid—and less effective.

Atropine is a powerful remedy for sciatica, lumbar neuralgia, uterine pains, spinal irritation, dysmenorrhea, ovarian and intercostal pains, and for tic douloureux. It is the great remedy for spasm, and more pain is due to spasm than to all other con-

ditions combined. When the cutaneous capillaries are spasmodic, the skin shrunken and cold, the pulse suppressed and tense, atropine will return the blood to the skin and relieve the internal hyperemia. Give to an adult gr. 1-500 in hot water every fifteen to thirty minutes till the skin reddens slightly and the mouth is dry; if relief has not then been secured this is not the remedy required—but there are few cases that will resist the king of spasmodic pain. A dose of gr. 1-100 injected close to the affected nerve will frequently conquer the most stubborn attack. It will not remove hyperplastic tissues compressing a nerve trunk.

Aconitine is indicated by a hard, wiry pulse, throbbing headache, evident displacement of blood suspending circulatory equilibrium, forms of neuralgia due to catching cold or checking discharges. Of amorphous aconitine give gr. 1-134 in hot water every five to twenty minutes until there is enough effect on the pulse to show full physiologic action; then less frequently. With quinine arsenate, aconitine is useful in periodic attacks.

Bebeerine has been recommended as a remedy for periodic cases, but this alkaloid having unfortunately acquired repute as a substitute for quinine it has never been investigated with a view to establish the difference in their powers. Bebeerine however is more astringent to relaxed connective tissues than is quinine, standing between the latter and berberine. This would indicate its value in relaxed conditions and during convalescence. The tonic dose is about a grain before meals.

Brucine, Caffeine, Cannabis and Others

Brucine has been advised in hysteric cases, in intercostal neuralgias, and for nervous erethism. This alkaloid possesses marked local anesthetic powers and is usefully combined with cocaine when the latter does not work well. Otherwise brucine resembles strychnine. The dose is about gr. 1-67 every five minutes till evidences of tonic action are manifest. Locally a 2 1-2 per cent solution may be employed with equal parts of similar cocaine solutions, as an anesthetic.

Caffeine has also been injected along the course of painful nerves, with asserted local anesthetic action, but does not equal brucine. Caffeine is useful internally for sciatica and other deep-seated neuralgias, and for affections of the brachial and cervical plexuses when injected. The dose for hypodermic administration is from one to five grains, made soluble by the addition of sodium salicylate. Both must be chemically pure—the salicylate if impure or contaminated will make the solution pink or even black. The solution may be made by dissolving 35 grains of sodium salicylate and 40 grains of caffeine in distilled water to make two drams. This gives a grain of caffeine to three minims or drops. Care must be taken to instantly wash out the needle of the syringe after injecting, as this solution quickly clogs the small aperture. For internal use caffeine valerianate may be given in doses of gr. 1-6 every few minutes. Other salts do well in hot water; small doses.

Cannabis is useful for neuralgic headaches and in visceral pains. The dose of a good extract is gr. 1-6 every half to one hour till effect, or till disturbance of the sense of time or space indicates toxic action. The want of a reliable and uniform preparation of this curious drug has hindered its use. The true remedial principle in it has not been isolated.

Capsicin is useful in cases developing after the patient has ceased the habitual use of alcohol or morphine; and when the vital depression extends to the stomach and absorption is stopped. A small dose —gr. 1-67 to 1-15—may be added to other remedies given by the mouth.

Arsenic is effective as a means of breaking up neuralgic sequences, malarial and otherwise; for angina pectoris, and in the neuralgias of frigid, anemic, amenorrheic women. Small doses should be given of the preparation selected, continued for several weeks. In angina pectoris the writer prefers arsenic iodide, gr. 1-67 four times a day, continued for a year if necessary.

Cocaine gives relief in cases due to overwork, mental strain, anxiety, apprehension, grief or other overmastering emotion, and in those stopping narcotic habits. It is a dangerous remedy, especially to the neurotic, and the patient should never be permitted to know that he is taking this drug. Disguise it effectually, and in most cases replace it with caffeine or brucine. The dose is gr. 1-6 by the stomach, repeated hourly to effect for the paroxysms.

Colchicine has a wider field than is generally believed. It is the remedy for the plethoric and the lithemic, for attacks following indulgence at the table (post-Thanksgiving headaches), or from catching cold; and whenever there is marked throbbing of the head. The acme of a migraine usually presents this indication. The dose is gr. 1-134 to 1-30, in hot water to hasten its phenomenally slow action, and repeated in two hours if necessary. This drug is best given in a single full dose when we have learned the patient's reaction toward it.

Treatment for the Neuralgias

The phosphate of copper is said to possess a specific power in relieving pains in the fifth nerve. This has also been claimed for aconitine, and for gelseminine. The differentiation has not been cleared up, and seems doubtful. Luton suggested this salt as a remedy for tuberculosis, and it may prove specifically valuable in the neuralgias of these cases. The dose is gr. 1-6 every two hours for nine doses a day.

Croton chloral relieves pain in the scalp; it has given most satisfaction in relieving the tenderness remaining after the subsidence of a neuralgia of this region. The dose is a grain every hour till relief.

Cypripedin and scutellarin are mild but efficient nervous sedatives, or rather calmants. They are useful for the depression attending nervous attacks. An attempt at differentiation has been made by assigning scutellarin to cases where the pupils are dilated and cypripedin to those showing contraction. The dose of either is from gr. 1-6 to 1 in hot water every hour.

There is no place in the treatment of neuralgia, a malady of depression, for any of the bromides unless it be camphor monobromide. This may be employed in doses of a grain every half-hour during the early evening, to secure sleep in prolonged attacks or after their subsidence.

Delphinine has been advised in obstinate facial and cervical forms. It combats vasomotor spasm and any irritation or excitement in the genital sphere, and may be employed in such cases. The dose is gr. 1-67 hourly.

Digitalin has been advised in sciatica and in aural neuroses. Its administration should be regulated by the tension of the pulse.

Emetine may be given to relieve the stomach of a fermenting mass and to stimulate the liver—a grain at bedtime. Sometimes the physician who has been vainly administering direct analgesics is mortified when an emetic reveals and removes the cause of the suffering.

Ergotin has proved useful in obstinate gastralgia with pulsation of the abdominal aorta. It was given hypodermically in doses of grs. 3 three times a week. The applications of this remedy might be amplified. As a vasomotor contracter is has been urged wherever this condition of the nerve center exists.

Eserine has been applied with good effect for neuralgias of the eyeball; the ordinary solutions of the oculist being used.

Sexual Irritability and Venereal Taint

Gelseminine subdues sexual irritability and is applicable to neuroses of this tract. It has been advised for dental pains also, with less evidence in its favor. Ovarian and testicular pains are quite certainly controlled by this agent in moderate doses —gr. 1-250 every half-hour, in hot water or hypodermically, until relief follows or the droop of the eyelids signifies the limit of its useful administration has been reached. If relief has not then been secured the condition-diagnosis has been erroneous, and other remedies are indicated.

Iodine may be employed for a syphilitic taint, or to stimulate the absorption of encumbering debris along the course of the affected nerve. The latter indication is apt to present itself in any inveterate neuralgia whether the painful points of Valleix are demonstrable or not. Massage is a useful adjuvant when exudative masses are found along such nerves as the sciatic.

Glonoin is the most active agent we possess to dilate the arteries, and acts more quickly when given by the mouth and stomach than it does hypodermically. It is indicated when the cutaneous vessels are spastically contracted; atropine being added to prolong the effect. Whenever any remedy is administered whose action it is desirable to accelerate, the addition of glonoin by opening the vessels secures this object. The ordinary doses are too large—glonoin gr. 1-250 will sometimes cause unpleasant cerebral fulness, and half this dose repeated every five minutes is preferable.

Macrotin is available for ovarian and uterine pains, for spinal irritation and possibly for fifth-nerve neuralgias. The dose is from 1-2 to one grain, in hot water, every half hour till relief or nausea occurs.

The injection of solutions of osmic acid along the course of an affected nerve has been employed instead of excision—the acid destroying the tissues. We are not believers in the destruction of diseased tissue, preferring to cure it; and when such a measure is unavoidable prefer clean surgery to the application of an agency less readily limited to desirable effect. The one per cent solution in distilled water is employed.

There is an indication for zinc phosphide, in breaking up severe and obstinate attacks. If the therapeusis is timid and tentative, habituation will ensue and relief be imperfect; whereas if the remedies are powerful and thrown in vigorously in maximal doses, the effect will be decided. Quinine gr. 2, zinc phosphide gr. 1-6, strychnine arsenate gr. 1-30, ext. cannabis gr. 1-2, given together and repeated every four hours, is a model formula for this indication. Zinc phosphide is unsuitable for cases due to cold or to inflammation, or for plethoric persons.

Quinine is employed to forestall attacks of periodic neuralgia, and for supraorbitals. A full dose—grs. 15 of the bisulphate—may be given six hours before the expected attack; or the arsenate or hydroferrocyanide in small doses every waking hour.

No one quite appreciates the value of salicylic acid until he administers it in doses of gr. 1-6 every half hour. The constant instillation of this minute dose prevents the growth of microörganisms and ferments in the stomach far better than bulky doses given at long intervals. Cases dependent on such fermentation, or on uric acid, rheumatism, etc., and tic when attended with acidity, are amenable to this agent.

Solanine is a drug with a future. It lessens the irritability of the sensory nerve-ends, gives tone to the capillary walls and relieves hyperemia of the nerve centers. In sciatica, gastralgia and other neuralgias it has replaced morphine with advantage, proving effective without the disastrous possibilities following the use of opiates for recurrent pain. The dose of solanine is gr. 1-12 for an adult, every hour till irritation of the fauces denotes the limit of its therapeutic benefits.

Strychnine Best All-Round Remedy

Strychnine ranks deservedly as the best all-round remedy for neuralgia, both for breaking a paroxysm and for the intervals. It is especially useful in visceral forms, for those dependent on sexual and other excesses, and whenever there is relaxation of tissue or languor of function in evidence. The various salts are to be applied as indicated; the arsenate for most cases, the hypophosphite when developmental nutrition in the young is obviously at fault, the nitrate for alcoholics and when the renal elimination of solids falls below normal, the valerianate for speedy effect and when nervous equilibrium is lost. The doses should be arranged with scrupulous care. Many persons can bear no more than gr. 1-67 every two to four hours; some have taken with advantage a grain within 24 hours. The dose must be gauged strictly by the effects, the pulse

tension being perhaps the readiest indication. Strychnine can be continued with advantage for a month; rarely longer.

Cases Requiring Veratrine

When the pulse is hard and wiry, the patient plethoric, the heart hypertrophied, the renal or other elimination markedly defective, so that convulsions are possible, the remedy is veratrine. This agent relaxes the vascular tension with certainty, the effect being prolonged to any desirable period by careful dosage, to effect. Muscular pain and soreness subside under this drug. It acts on all the eliminants, kidneys, skin and liver; and as there is a toxemia present in very many cases of neuralgia, the indication for this agent occurs far more frequently than is suspected by most physicians. Veratrine should be given to adults in doses of gr. 1-134, freely diluted, every half hour till nausea or softening of arterial tension denotes full useful effect. If acute or subacute gastric catarrh is present, or if the patient is very susceptible to the local irritation caused by veratrine, there will be manifested a sense of heat defining the limits of the stomach—contraindicating the further use of the remedy by this route. The combination of atropine with veratrine has not been tried so far as we know, but might prove effective when the cutaneous vasomotor spasm is marked and elimination low.

In the foregoing outline the term "neuralgia" is employed in the widest sense—rather etymologically than pathologically—as it appeals to the clinician in this way. It is nerve pain he is called to relieve; and the institution of effective therapeusis can not be too prompt for the suffering patient. The pathologic diagnosis may wait.

From this long list of remedies the reader may judge of the wealth of our resources for the relief of nerve pain. As we use and study these uniformly acting agents, it is evident that most important discriminations as to their applicability in various conditions are to be made. While men gave conglomerations of them, without much discrimination, such accurate differentiation was impossible. Nearly every prominent alkaloid is a member of a group of closely allied agents, which are at present only known to "resemble" it in a general way, but which will undoubtedly prove to possess special properties of value when studied. We know, for instance, that brucine possesses a local anesthetic power not enjoyed by strychnine; but what about thebaine, laudanine, calabarine, gelsemine, and the rest of the tetanizant group? We know nothing beyond their general resemblance to strychnine. The study of such groups, under the conditions presenting with modern physiology, may be expected when the therapeutic revival we advocate becomes general.

MAY it not be found that the active principles of many of these drugs are akin to the hypothetical antibodies produced by the cellular elements in the diseases in which these drugs have been demonstrated to be useful? The study of medicine is the study of life, and its foundation is the unit of life, the living cell. If the mystery of life and the action of remedies is to be solved, it will be by the experimental examination of the simplest form of life.—A. H. Bampton, British Medical Journal, March 2, 1907.

THE CALINGA: THE PHILIPPINE HEAD-HUNTER

The adventures of an American surgeon who has "followed the flag" into the remoter mountain fastnesses of the Philippines, lived among strange people and had some thrilling experiences

By THOMAS E. MOSS, M. D., Tuguegarao, Cagayan Province, P. I.
Surgeon in the Philippine Constabulary

II

IT is summer now, and the flowers are blooming in my Old Kentucky, the dearest place on earth to me. I have traveled many thousand miles in my life and have seen many different countries, and I have come to the conclusion that the author of "Home, Sweet Home," when he wrote "there is no place like home" meant Kentucky instead of home, but just put the word home in so that the song would fit everybody.

You should be over here if you like flowers, for this is a land of flowers, a land where the flowers never cease to bloom. It is especially so here, where I am now, that is, in what is known as the Great Cagayan Valley. This valley is about forty miles wide and is flanked by two great chains of mountains, the tops of which look down a thousand feet upon this beautiful valley of flowers. All of the plants that you see cultivated artificially in the states grow here in the greatest profusion; great orchids measuring twenty feet across, all kinds of palms, from two or three inches high to those that rear aloft their heads to a height of two hundred feet with not a branch nor a leaf until within ten feet of the top.

Stepping on a Spear Placed in the Path

I made a trip through the Calinga country about four months ago. I didn't get killed, but came very near it. I stepped on some sharp pieces of bamboo that had been placed in the river where we had to cross, and cut three gashes in my foot. Two of the wounds reached clear across the foot and one nearly across. The worst part of it was that I had to walk, thus wounded, more than a hundred miles, climbing mountains, wading up the beds of streams, walking on stones nearly all the way. I did not delay the expedition any but it took all the grit I had to stand it; and then there was always the thought of stepping on more, or what would have been worse, treading on small spears placed in the trail by the savages—though there was not so much danger from this, as the natives that were with us nearly always found them and pulled them up and threw them out of the path. You see, we had to march in single file and the best man went in front, that is, the man who was most acquainted with the country and the ways of the savages. The mountain stream which I was crossing when I cut my foot was a typical one; shallow in places, deep in others, full of boulders and stones, and withal, rushing along at the rate of an express train.

Can you imagine what happened when I stepped on the bamboo sword? I acted exactly like the little boy does when he stubs his toe. I stooped down to grab my foot. I didn't get it though! For, as might be expected, I was whisked off my feet, and away I went down-stream, rolling over and over and bumping into boulders, and finally steamed up alongside a large one that sloped to the water, so that I was able to crawl up on it, and there I grabbed my foot in earnest, for it was paining me frightfully. A bamboo is very poisonous and when you receive a wound from one you can't imagine anything that will hurt worse for the size.

Food for the Caiman—Almost

When I finally got ashore, which none of my companions ever expected, they told me that from the steam of blood following me and from the way I rolled and struggled, they thought a crocodile had me and that

The Author—Showing How It Is Done

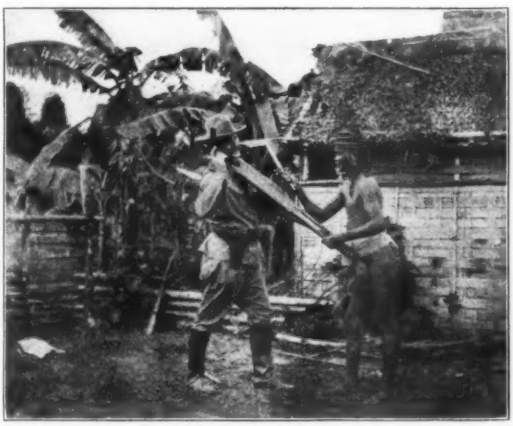
as soon as I went under they were ready to resume the march, knowing that it would be useless to hunt for my body, as the caiman always makes for the bottom of the deepest pool he can find and there drowns his victim—and, I suppose, eats him; though I do not know about that and have never thought to ask whether they can eat under water or not. I am not sufficiently interested to try the experiment, and if I can finish my contract without running afoul of a hungry crocodile, I shall be glad. I cannot think of anything more horrible than to be pulled beneath the waters by an irresistible force and knowing that you are utterably unable to defend yourself—no chance at all, simply death, certain and horrible.

A few people actually have escaped from the monstrous jaws of these crocodiles. One I have in mind in particular was a Calinga Indian. He was crossing an *estero* in a *banquillia*, which is a boat made of a single log. The Indian was sitting in the back end of it, when the crocodile, or caiman, caught hold of him, taking part of his back and leg in his mouth, pulling him out of the boat and down to the bottom, where the fierce old warrior with his head-axe fought for his life. Wouldn't it have made a picture, could we have seen that fight—what a mighty life-size painting it would have made! The Calinga killed the caiman and came to the surface, where his companions pulled him in. The flesh was stripped from his thigh and loins, but the old fellow is alive today and is one of the greatest head-men among the Calingas. You see, the natives have the advantage over an American in this business, because the native always has a bolo and the Indian his head-axe, while the American generally has a revolver, which would be worse than useless under water, for it would explode if shot and would probably tear off his hand.

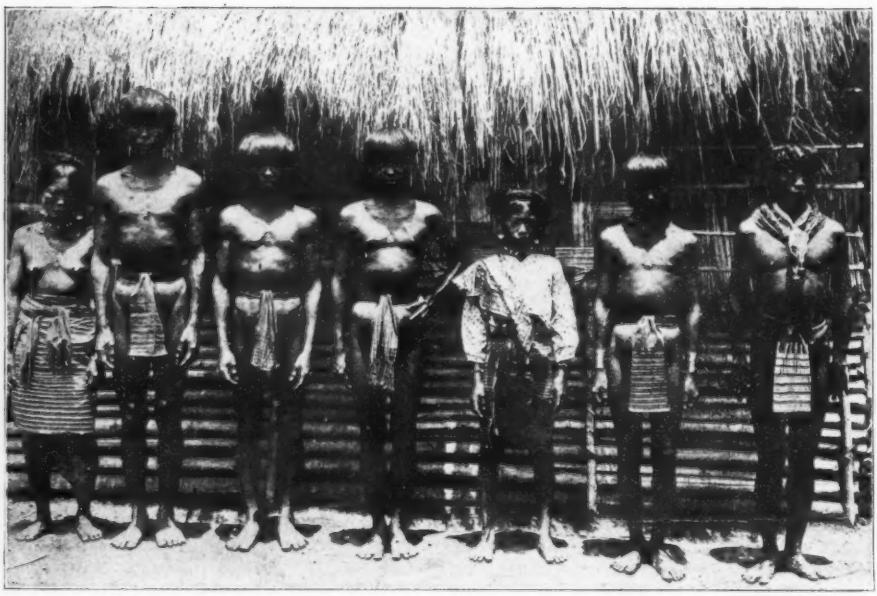
The Calinga Head-Axe

Have you ever seen a head-axe? They certainly are effective, and it is one of the most graceful weapons you ever saw. There are many different kinds, though I think the Balbalassan head-axe is the best. It has a long, thin blade, curved and sharp-pointed, with a curved spike on the back of the handle, is nearly always decorated with brass and other metals and is sometimes made of carabao horn.

I am getting together a very good collection, and if you will come to my home when



The Result of a Bad Cartridge



The Children of the Chief

I come back to the states, I shall take great pleasure in showing to you all the different things that I have and tell you the history of each. Everything I have has a history more or less interesting.

I am never quiet very long at a time, but am moving around and in that way I get to see many things. I have been here in the islands only since last October (1905) and imagine I have seen more and had more experiences than any other two men in the islands in the same length of time and with the same opportunities.

While coming over here on the ship I listened to talks of men who had been shot and cut to pieces—most incredible stories, of course. I listened and wondered, and believed all I could, until I saw Lieutenant Schemmerhorn wounded. Then I believed all I had heard. He received a bolo slash that cut his head half off and he is alive and well now, only suffering from a paralyzed eye and ear and side of face. The bolo wound starts from the angle of the mouth and runs upward and backward, passing across the external opening of the ear and on back. The blow knocked him down, but he was up in a few minutes looking for something to fight with, as his revolver had been taken from him the minute he fell. As he was getting up, a native struck at him again. Schemmerhorn caught the descending bolo with his left hand, losing three fingers by doing so but securing the bolo, with which he raised—using his own language—"hell for a while," in fact, until the natives all ran away. There were six dead natives, one white man uninjured, and one with the head cut open. The latter recovered but was crazy until he died some months afterward.

Another Trip Through the Mountains

I started writing this some time ago and since then I have made another trip up through the mountains into the Calinga country. Again we had good luck and everything went well until we reached the last *rancheria* visited upon our former trip. There our troubles started. Our former trip we made friends with the men that we could induce to come into the town. They were few, though, for most of the men of the *rancheria* took to the mountains

and would not come back. This time none of them stayed to welcome us. I want to say right here that all good Calingas are those that are dead and whose skulls are either resting in some jar of vassi or are beautifying some enemy's head-basket. When we reached this *rancheria* we had thirty soldiers, fifteen *cargadores*, and ten or twelve head-men or chiefs from those *rancherias* that we had already passed through. You see, it is customary to take along the head-men from each *rancheria* and drop them as we come back. Now, all this crowd had to be

The Head Basket, in Which Victims' Heads Are Preserved

fed and we had to kill the hogs that we found at this place. Everywhere else we invariably paid for the same, but at this place there was no one to pay to. While we were busy beating out rice and cooking hogs, the Calingas attacked, having slipped through the tall cogone grass and undergrowth up to where our sentinels were posted, who immediately opened fire upon them. The Calingas could not stand the racket and departed for the hills.

We stayed all night at this place and in the morning built *balsies* or bamboo rafts with which we were to float down the river to Aparri and to what nearly proved a massacre. We decided to go on down the river instead of going back the way we came. You see, we could float on down the little mountain river to Aparri where it empties into the great Cagayan River. From there we could take a steam launch and come back up the Cagayan to Tuguegarao, from where we had started.

Almost Massacred by the Calingas

While we were building the rafts, the Calingas gathered on the hills on each side of the river but out of range. After completing the rafts, we sent all but seven soldiers and ten *cargadores* back on the home trail, the way we had come. And this is where we made a mistake. For no sooner were the soldiers and head-men out of hearing, than the Calingas became more demonstrative, threatening, hooting and yelling at us as we floated down stream—I should say, sped, for this little river runs about thirty miles an hour. The *balsies* are guided by two men with poles. This river is full of great boulders and looks to be the track of an old glacier, for the boulders are immense things, perfectly round and smooth. I suppose the rushing water has helped to smooth them, but it certainly does not move them; some greater force was necessary to roll them into the shape in which they are now found.

You may think I am getting off the subject, but I am not, for it was one of these boulders that nearly cost us our lives later on in the day. Two officers, myself and two *cargadores* were upon the first raft, the *cargadores* poling the raft. These rafts being about eight feet across and thirty feet long, the soldiers and other *cargadores* and one other officer were strung out behind on other rafts, about five men to each. We proceeded in this way until about twelve o'clock, when it was necessary to land and drive back the Calingas, who had gathered to the

number of, as well as we could judge, about three hundred, and who were following on each side of the river, shooting arrows at every point where the river narrowed enough to bring us within range. These arrows are cruel-looking affairs and, as we thought at that time, poisoned, for in pulling one out of the raft, where it had stuck, I found the point covered with a sticky substance. These points are six inches long, half an inch wide, and full of barbs. These people over here are, or seem to be, very much infatuated with the idea of putting barbs on everything, and at that time, you may rest assured, I thought they would not stop at barbing their weapons but would put a plenty on me or rather in me. I couldn't see anything but barbs and spears and head-axes, and they were not confined to weapons in the hands of the Calingas, but were everywhere. The air, water, rafts and men were full of them, owing to the fact that we had to pass into the mouth of a canyon, where the river narrowed and ran like a mill-race. The Calingas had circled ahead of us and congregated at this place on both sides, whence they poured down a regular hail of arrows, spears and stones.

Saved by the Swiftness of the River

The only thing that saved us from extermination was the swiftness of the river at this point and the fact that they were shooting almost straight down; and I can't see how even that saved the first raft, upon which I was, because at the first shower of arrows the men who were poling the boat dropped their poles and tried to hide behind us; the raft having lost the guidance of the poles, which at best is bad, landed halfway out of the water upon one of the heretofore mentioned boulders, right in the middle of the stream.

Well, we were in it with a vengeance. Stuck fast and tight, we could not leave the raft and could not get off. We officers were armed only with revolvers, mine an automatic Colt's, and you can bet I wished that the magazine clips were four feet long instead of only holding eight cartridges. We had to load and shoot for all we were worth. When all pistols were empty, one would menace each Calinga as he would rise for a shot until the other two had reloaded. We kept this up until we finally found ourselves afloat again. Our maneuvers—which I think were something funny, if only someone had been above us in a balloon and out of harm's way to see—together with the force of the current, had swung the raft around and off the rock. While all this was happening, which was at least ten minutes, the other rafts had passed us. These were unable to stop and come to our assistance, they having to dodge the rocks and keep from turning over, as best they could, at the same time keeping up a galling fire upon the Calingas above as long as they were in range, which at best was only a few minutes.

This took place about half-past four, and by the time we had entered well into the canyon it was dark, as night comes quickly in the valleys between the great frowning vine-clad mountains. As soon as we discovered that the Calingas were shooting at the flash of our guns, we ceased firing, as the only good it did was to draw their fire; and as we were out of the fight, killing more of them would do no good, though we could see them outlined against the sky while they could see nothing but the flash of our guns.

We finally passed out of the canyon and into the comparatively open country of the foot-hills, where we landed and camped for the night on the water's edge, ready at a moment's notice from the sentinel to push again out into the treacherous stream. But bad as it was, it would have been far better than to have stayed on shore and tried to fight the horde of savages in the dark, as the moon shed only a pale, misty light, only enough to make things look weird and ghostly and make each blade of dew-laden grass look like a spear as the light glanced from it.

No One Escapes Injury

We passed the night here without molestation, though one or two false alarms were

sounded; when we had gotten things together in the morning and had time to make an inventory of our wounds, we found that none had escaped injury. The officer first in command had been shot in the wrist by a rifle, the Calingas having fired two shots from an old Spanish rifle which they had captured from a Spanish expedition that tried to go up this river years ago, but of whom nearly all were killed. The second officer in command had received three arrows in his left leg, two between the hip and knee, and one in the calf of his leg. The others of the party had all received their quota.

Most of the soldiers' wounds were from spears, we on the first raft seemingly having drawn the better part of the arrows. Taking it all in all, it was a very disagreeable predicament to be placed in and one from which I never thought I would emerge to tell you all about it.

FIRST STEPS WITH THE ALKALOIDS

The first experiences of a young medical graduate with alkaloidal medication; how he learned of it and how he put it into practice. Some of the results which he obtained

By MALCOLM DEAN MILLER. M. D., Boston, Massachusetts

DURING my last year in the medical school I began to realize my incompetence, therapeutically, to treat cases with any confidence of success. At Harvard, the *fons et origo* of nihilism, the teaching in materia medica and therapeutics was formerly crowded into a single half year. The only strong memories I have of the course are Prof. Pfaff's dictum, "Always use the alkaloids," and his demonstration of caffeine as the physiological antidote to alcohol on an inebriated yellow dog.

How I Learned of Alkaloidal Practice

Accordingly I put in all my spare time reading up on this most important subject, without much clearing of my ideas, until one day I received a sample copy of the CLINIC. Mentioning it next day to a classmate, he told me that the goods were all right and that his uncle, whom he had been for two years assisting, used them almost exclusively in his practice. I sent at once for the magazine and Digest and began to lay in stock. The Digest came like a revelation. I studied it until it became ragged, and I got many definite facts fixed in mind.

The first case in which I used alkaloidal treatment was that of J. W., 22, single, who had a bowel derangement, simulating appendicitis. I had seen him in the evening, when he remarked that he was not feeling well and was going to take a big dose of salts, as he had been constipated thirty-six hours. At six the next morning I had a telephone call "to come at once," John was having frightful "pain in the appendix region"—my informant having once had an attack of his own.

I found the patient with a temperature of about 99.5° F., pulse 100, abdomen slightly tense and tympanitic, no true muscular rigidity, but voluntary spasm from fear of being hurt, tenderness over the cecum and ascending colon, no tenderness at McBurney's point. I came to the conclusion that I could not honestly make a diagnosis of appendicitis on the evidence, and decided to try the "clean-out, clean-up and keep-clean" method which I had read so much about. I gave a grain of codeine sulphate for the pain, one grain each of calomel and podophyllin in divided doses, and went home for breakfast. At noon I began the exhibition of saline laxative and added calcium sulphide, gr. 1-6 every hour to saturation. When I called again in the evening, conditions were unchanged, save that I could

palpate the impacted cecum more readily. I repeated the codeine as well as the laxatives and told the patient if his bowels did not move by morning I should have to wash them out.

In the morning I passed the colon tube to the splenic flexure and gave a high enema of two quarts of normal saline solution. The movement which resulted was fairly good, but I got the tube in still further and repeated the process. During the day the laxative acted well and the patient began taking the intestinal antiseptic tablets, two every hour with a full glass of water. The sulphide was now beginning to smell on the skin and the temperature and pulse were down. Next morning stools were odorless, abdominal symptoms absent, and the case was left on saline laxative and the sulphocarbolates.

Trying Sparteine in Large Doses

Pettey's paper on sparteine interested me greatly, and when I learned from my classmate above mentioned that his uncle had used the two-grain dose successfully in pneumonia, I got some tablets. The first case on which I used the drug was one of cancer of the bowels with a mitral stenosis of twenty-five years' standing. When first seen the patient had been in bed seven months, under the care of several different men; had taken enough tincture of digitalis to float a canoe and was suffering severely from its effect on the stomach. Pulse was 120, regular, of fair volume and tension; no peripheral arteriosclerosis. Dyspnea was marked, worse at night; slight edema of ankles; urine normal; lungs showed considerable hypostatic congestion and patient raised frothy sputum constantly; face slightly cyanotic.

The patient was put on sparteine sulphate, grs. 2 every four hours. Improvement began at once, and eight days later the lungs had cleared entirely and pulse was 100. The patient took about eighty two-grain doses and then complained that the drug was upsetting her stomach much as digitalis had done. The pulse was then 90 and she was very comfortable; so I changed to strophanthin in sufficient dosage to hold it there. The latter drug agreed perfectly until I discontinued it two weeks before the fatal termination from the cancer, four months from my first visit.

Another case, Carrie G., aet. 42, married, has suffered for some years from mitral regurgitation, with broken compensation, requiring rest in bed and heart tonics about once a year. The last break-down occurred four weeks ago and cleared up in ten days under two grains of sparteine sulphate three to four times a day. A year ago a less serious attack took a month to clear up under digitalis. This time I am sure that she will stay in bed as long as ordered, as she fractured a metatarsal in getting out of bed two weeks ago. I am trying the drug out in several other cases.

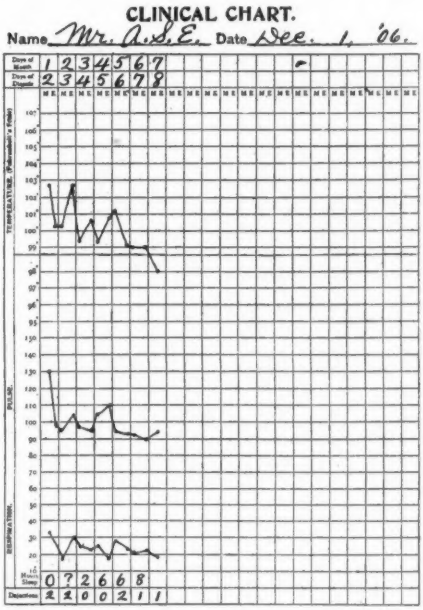
Alkaloidal Treatment of Pneumonia

Now for pneumonias. My first was Mr. E., aet. 48, married, a thin asthenic man, in poor condition from overwork. Had felt well and eaten a big Thanksgiving dinner. The next morning he had chilliness, but no decided chill, and by evening was quite sick and feverish. His wife gave cathartic pills and sent for me the next morning. My first visit was at noon, Dec. 1, thirty-six hours from the first chilliness. The patient had pain in the right chest near the nipple, cough with blood-streaked sputum, temperature 102.7°F., pulse 130, respiration 32; bowels had moved twice during the morning; the right lower lobe was solidified.

Treatment throughout was strictly alkaloidal, with the dosimetric trinity, nuclein, intestinal antiseptics, and adjuvants as indicated. I append chart.

The patient was left on saline laxative mornings, intestinal antiseptics, two tablets after meals, calcidin, two grains t. i. d., and triple arsenates with nuclein, eight daily. December 14 he called at the office for something to relieve anorexia, which gave way to brucine and quassin in two days. As his wife described it, she couldn't give him enough to eat—a result which invariably follows when one of each tablet is

dissolved on the tongue, just before eating. I feel sure this patient would have had a much longer illness under the orthodox strychnine and whisky, and never-mind-the-



bowels treatment. He regained strength slowly, as it was, and did not return to work until after Christmas.

Bronchopneumonia at Eighty-Two

A case of bronchopneumonia, the patient my paternal grandmother, aged 82, did even better. One Thursday afternoon I dropped in at my father's and was told by my sister that "diddy" had collapsed about eleven. I had nothing with me but my two nine-vial emergency cases, but made a snap diagnosis of pneumonia, and started giving aconitine, digitalin and brucine, one of each every thirty minutes, for six doses, then hourly. Temperature 102°F., respirations 24, pulse 100. Next day I made a thorough examination, made a diagnosis of bronchopneumonia and called in Dr. Crocker of Cambridge, who confirmed my diagnosis, and suggested adding nuclein and calcidin. Saturday evening pulse, temperature and respiration were normal and the patient felt perfectly well, though weak. One month later she said she was feeling better than for two years past, but "lazy."

Calcium Sulphide and Nuclein Cure Tonsillitis

Calcium sulphide and nuclein have this winter proved a most effective and speedy remedy for tonsillitis. Used in conjunction with my favorite, "triple sodas", as a hot spray, I am getting results in two and three days where formerly the cases would drag on seven to ten days. The triple-sodas prescription is equal parts of sodium bicarbonate, sodium biborate and sodium salicylate. Sig.: A teaspoonful in two ounces of hot water as a gargle or spray. Use hourly. The prescription is Knight's.

Just a Word for Arbutin

Now a word for arbutin and I have done. Last summer I returned from a two-days' vacation to find an old G-U case with the fiercest kind of a cystitis. He had a mixed infection, given him by an advertising quack before he came to me. Primary gonorrhea fifteen months before, two anterior strictures, 14 and 22 French. The bladder trouble suddenly lighted up and for the two days I was absent he had been passing urine every five minutes. The treatment was arbutin, gr. 1-6., two granules; lithium benzoate, gr. 1-6, four every hour. Twenty-four hours later urination was every hour and one half, the tenesmus and pain in the bladder were gone, and 2-per-cent boric acid irrigations soon got things comfortable again.

The formin compound, No. 2, containing one-half grain of arbutin, works very favorably in the declining stage of acute gonorrhea when the discharge has diminished to a mucoid drop. Later I may report cases.

RHEUMATISM AND ALLIED AFFECTIONS

A simple and efficient method of treatment, which has proven successful in many cases and which can be made a reputation-maker for any other physician

By R. E. MASON, M. D., Greenwood, South Carolina
Formerly Professor of Therapeutics, North Carolina Medical College

HAVING used for a number of years the treatment advocated in this paper with perfectly satisfactory results, and with the hope that it will be of interest to the profession, I give it to my friends and trust that it will prove as successful in their hands as it has been in mine.

It is probable that every reader of this article, in his college days was advised to treat his patients for tuberculosis, malaria or syphilis, when unable to make a diagnosis.

The reason for this advice, of course, is because these diseases manifest themselves in so many different ways. I am of the opinion that "deficient elimination" manifests itself in as many, if not more, ways than any of these three diseases. Deficient elimination may be either relative, caused by indigestion—both gastric and intestinal—torpid liver, chronic constipation with their accompanying intoxications, or absolute, as in gouty and rheumatic conditions.

Space is too valuable for me to give my opinion as to how the treatment relieves these conditions. Facts are the most important things, so I will give them as I have found them.

Colchicine and How to Use It

My treatment consists in giving 1-134 to 1-45 grain of colchicine t. i. d., beginning with a small or medium-sized dose, according to the condition of the patient, and increasing the size of each dose day by day, according to the severity of the case, and continue increasing until it purges gently, then the dose is reduced so that it will cause one or two good actions each day.

To be successful, it is imperative that the drug be pushed until its purgative action is manifested. This drug is also invaluable in the treatment of lumbago, toxic eczema, sciatica and other troubles too numerous to mention, when, as is often the case, they are caused by deficient elimination; combined with cascara it makes an ideal combination for chronic constipation.

In combination with colchicine in the treatment of muscular rheumatism, and often in treating other manifestations of deficient elimination, I prescribe a saturated solution of potassium iodide, 1 ounce. Five drops of this is given in water t. i. d., increasing one drop daily until the patient's "nose waters like a cold", then I reduce the dose so that the action falls just short of this effect.

I trust that each reader will give this treatment a fair and thorough trial and will not use a wine of colchicum and expect the same results, for disappointment will certainly follow.

Guard Your Prescriptions—or Dispense

If you do not supply the patient with these drugs do not fail to write on the prescription, "not to be refilled," for if you do not, the first prescription is apt to be the last; the medicine produces such marvelous results that it will be passed from patient to patient, while if the laity is prevented from getting hold of it, you will soon have patients hunting you up and asking for this treatment.

I am enthusiastic in regard to the use of colchicine and believe it is a much-neglected drug. I consider it, in its place, as valuable as strychnine, morphine, mercury or any other of the important drugs, and to show why I am enthusiastic, I give you a brief report of a few of my recent cases:

Case 1. Male, age 28. Had been treated by a brother physician for three or four

weeks before sending for me. I found the patient in bed, suffering to such an extent as to be practically helpless. The diagnosis was chronic muscular rheumatism. I administered the above treatment. Result: In three days the patient attended church, one mile from his home.

Case 2. Female, age 21. She had been treated for five or six months by various physicians and, according to the patient's statement, with practically no results. She had suffered so much that she was unable to attend to her work. Diagnosis, sciatica. I placed patient on the colchicine and potassium iodide treatment. Result: Patient took only one dram of the solution and the corresponding amount of colchicine, as she was relieved to such an extent that she considered herself cured.

Case 3. Male, age 32. The patient suffered from constipation, pains in the back and various parts of the body. Diagnosis, deficient elimination. I placed him on the same treatment. Result: Entire relief.

Case 4. Female, age 27. She had been treated at intervals for a number of years, for eczema of the hand, with practically no results. Diagnosis: Toxic eczema from deficient elimination. I placed the patient on colchicine alone. Result: Eczema disappeared. The patient stopped the treatment and the eczema reappeared again. On the resumption of the treatment it again disappeared.

Case after case like these could be mentioned, but I mention one more to call attention to the necessity of studying each case and making a correct diagnosis; for, while colchicine will never disappoint when indicated, if given in sufficient dosage, disappointment of course will result if it is not indicated.

Case 5. Female, age 35. She had been treated for rheumatism by three excellent physicians and had grown steadily worse. The patient sent for me "because I have heard you cure rheumatism." She complained of pain in the back and right hip. Diagnosis, tubercular hip-joint disease. Of course, I did not put the patient on the colchicine-potassium iodide treatment.

—:o:—

This brief paper from Professor Mason is pregnant with truth and supports our contention that the bane of civilization is lack of proper elimination. Colchicine, as the doctor says, is a much-neglected remedy. The addition of potassium iodide is undoubtedly good, but the same, if not better, results may be obtained by the use of iodized calcium (calcidin), which combines a tonic with the iodine. The combination of calcium, lithium carbonate and colchicine (for short called calcalith) will also be found useful. So, likewise, boldine, the active principle of Peumus boldo, will be found a most valuable eliminant always, its especial action being through the kidney. Whatever expedient is adopted, saline elimination is essential and the granular effervescent magnesium sulphate with colchicine (salithia) will be found among the best.—ED.

THERE is no drug which can compete with cheerfulness. A jolly, whole-hearted, sunny physician is worth more than all the remedies in an apothecary shop. A writer known for his cheerful sayings received a letter from a lady, stating that one of his humorous poems had saved her life.—Success Magazine.

A CRITICISM AND A REPLY

Mainly concerning pneumonia, the possibility of its abortion, and the use of aconitine and synergistic remedies; with some remarks upon the question, "Who is an authority?"

By W. HUNGERFORD BURR, M. D., Gallup, New Mexico

I HAVE read your February number from cover to cover, and as a result wish to have a little chat with you

I may be wrong, but my idea of the basic principle of medical journalism is to uplift medicine and surgery; and to be a medical editor in the truest sense of the word implies a devotion and sincerity that has nothing to do, except incidentally, with any pecuniary reward.

From your editorial, "The Lay Press and Pneumonia," I will quote: "Basing our drug application on the known disorder of vasomotor conditions, we use digitalin to contract dilated or paretic circulatory areas, aconitine to relax contracted or spastic areas, reinforcing the former with strychnine when asthenia is prominent, and the latter with veratrine when sthenia is prominent."

Your indications seem rather vague here. Do I understand that in some cases (asthenic) you would treat with digitalin and strychnine, depending upon the contraction of paretic areas, to cure your patients, and in others (sthenic) depending upon aconitine and veratrine to cure your patients, by relaxing contracted or spastic areas?

"*How to Force the Result on the Profession*"

What I am coming at is this: If you have a treatment for pneumonia that is abortive or curative in a large percentage of cases, as is claimed by yourself and many of your contributors, why, in the name of all that is holy, do you not get some physician connected with a large hospital interested in the method, and force the result on the profession? It ought not to be difficult in a large city like Chicago to find dozens of men whose experience is authoritative, to test your method, men who are connected with hospitals and dispensaries, whose word is law to the general profession.

You cannot convince me that intelligent physicians are hidebound to the extent your editorials would imply. I will warrant that either you or I could start out tomorrow and find a dozen good men in Chicago or New York who would not hesitate to put your theory to a proving in the hospitals with which they are closely connected. In the meantime the mortality from pneumonia, as Osler states, remains at from 20 to 40 per cent, and the little fellows from the cross-roads town are heralding lists of hundreds of cases of pneumonia treated with your method or some other specific method, with a nil mortality.

Here is a case: February CLINICAL MEDICINE, p. 224, "A case of Pleuropneumonia:"

November 1, 8 p. m., temperature 104°F., pulse 130; aconitine 1-67 grain every half hour to 6 p. m. Total 1-4 grain.

November 2, 6 p. m., temperature 104.5°F., pulse 130; aconitine 1-67 grain until 10 a. m. Total 1-2 grain.

November 3, 10 a. m., temperature 103 1-2°F., pulse 125. 7 p. m., temperature 104°F., pulse 125; aconitine 1-67 grain every half hour to 10 a. m., Nov. 4. Total 3-4 grain.

November 4, 10 a. m., temperature 103°F., pulse 120. 6 p. m., temperature 103 1-2°F., pulse 120.

November 5, 10 a. m., temperature 102°F., pulse 110. 5 p. m., temperature 101 1-2°F., pulse 100. Total 3-4 grain.

November 6, 10 a. m., temperature 99°F., pulse 90. Total drug 3-4 grain. 8 p. m., temperature 98 3-5°F., pulse normal. Total drug 1-6 grain.

How Much Aconitine May be Given

From the fifth to the seventh day, according to the old fogies, one might be expected to find defervescence, barring complications, and it seems to me the patient was lucky to get well, considering the amount of drug she took. The average dose of aconitine as given by the text-books (latest) is 1-200 and 1-150 grain [of *crystallized* aconitine—*not* amorphous.—ED.] Do you mean to say that a patient can take, with impunity, an amount of a reliable preparation of aconitine equal to 3-4 grain in twenty-four hours? Or 2 3-4 grains in three days? The total dosage for four days in this case was 2 3-4 grains plus 1-6 plus 1-3 grain.

With reference to another contributor of the February issue who treated himself with massive doses of digitalin, aconitine and veratrine for alleged pneumonitis, with result of defervescence in forty-eight hours, permit me to say that I have had a number of cases this winter presenting all of the clinical symptoms and some of the physical signs of pneumonia, among the former even the spitting of blood, and who were at work in from forty-eight to seventy-two hours, doing rough mining work. They were not treated on the vasomotor theory, though some of them received alleged specific medication.

I have also had a number of cases of a still more typical variety in which the reduction of temperature and alleviation of all symptoms was much more rapid than many of the cases reported as treated on the vasomotor plan, all of which were treated upon an alleged specific method. Yet I do not claim for this method that "I know I am right." We would have to have hundreds of cases to prove any theory of medication, and in any case, you have, perforce, to treat your patient, not the disease.

The Different Types of Pneumonia

There may be, and probably are, many different types of pneumonia, dependent upon environment, locality, elevation and last, but not least, the type of the individual, his physical or pathological condition. There probably are conditions in which all the physical and clinical signs of pneumonia are present, yet in which the *bacillus* is not present, and such patients cannot be said to have true pneumonia. Then there are the tubercular and influenza types or complications of true pneumonia. Would you give such patients massive doses of arterial and vasomotor depressants?

Aconite and veratrum given in almost any type of pneumonia, except in a few selected cases, have the condemnation of almost, I might say all, the leading authorities in clinical medicine in this and other countries.

Yet that does not prove anything, perhaps, and you may be right; but permit me to say that, to my mind, you do not go the right way to prove it. You receive and print reports of individual cases which may have been and may not have been pneumonia, and pat the contributors on the back with "good boy," "good work," which cases prove nothing, as anyone may have one case or a dozen cases presenting more or less typical symptoms, all of which get well with any or no treatment.

Exaggerated Claims of Cure

I have met homeopathic physicians who claimed to have had 100 or 200 cases of pneumonia which they treated homeopathically without one death (?). Does anyone believe such stuff? I always put them down as poor diagnosticians or liars. I have met disciples of the vasomotor theory who also claimed to have a long list of pneumonia cases treated on their plan without a death, and I have been in at the deaths in some cases.

In conclusion I will state, as my belief, that any theory or system which is basically true is bound to prevail in the end and prevail in the minds of the majortiy. You cannot bury the truth, though it may at times become obscured.

Therefore, I say, if you believe your theory to be true, keep hammering away at it, but I would suggest a different manner of procedure. Though the above may seem stringent or harsh in some respect it

is not intended as such and I am open to all things reasonable and provable.

—:o:—

We wish to assure Dr. Burr that our idea of the duties of the medical journalist agrees with his own; we have been trying for many years to "uplift medicine"—not however in an impractical, theoretical way, but by giving the general practician the utmost help in his daily work. The thousands of physicians who read this journal and who are following out its teachings with infinite satisfaction to themselves, in their practice, are the best evidence that we have not failed in our efforts.

Now as to the reasons why we do not secure some physician, "an authority," a man "whose word is law," to make extensive clinical tests in some hospital of the method of treating pneumonia which we advocate, his conclusions we assume to be accepted as final, several things might be said.

Who are those "authorities" and where are they? We assume you to mean men of large experience and recognized diagnostic skill, willing to help along therapeutic investigation. We have not found it so easy to secure such men to make hospital tests as you seem to think it should be, though many just such men are using the alkaloids in their private practice, and giving them unstinting praise. Such tests, to be of value, must not be left to hospital internes and nurses but must be made with the utmost care as to detail; furthermore, they should be made by someone who will attend personally to those details and who is not already fixed in his opposition to the method, who comes to it at least with an open mind, prepared for conviction if it shall be forced upon him. Many of the alleged "tests" are mere farces. For instance, I was cognizant of an alleged test given to Dr. Aulde's method of treating typhoid fever by the use of nuclein and copper arsenite, in a Philadelphia hospital. The physicians were known to be opposed to it, to hold the method in derision; the underlings took ground with the known predilections of their superiors. No representative of Aulde was there to see that the remedies were given in accordance with his desire; no preliminary emptying of the alimentary canal was maintained; that under such circumstances the nurses would faithfully administer the remedy is unlikely, and the failure reported did not influence the view of any one who knew the condition that brought about the result.

One of the most prominent clinicians in Chicago, after acknowledging his faith in these methods, was asked why he did not openly testify to his faith. He replied that he found it judicious to move in the lines of the least resistance. You may interpret that yourself—I will only assure you that he is not alone.

Now do not make the mistake of believing that we are in the slightest degree opposed to the most thorough and searching clinical investigation that can be made—in a hospital or anywhere else. We have repeatedly urged that just such tests be made. We have offered to furnish free the remedies essential for such a test, and to pay all the expense incident to it, and we repeat the offer here. Furthermore, we will give every assistance in our power, both personal and financial, to assure the thoroughness of such an investigation—whoever may make it. We make one condition only, that we shall have personal representation and supervision of the cases so treated, for it is necessary to emphasize a fact which you seem entirely to fail to grasp—that we advocate no "specific" treatment for a *disease*, but the adaptation of remedies to meet every condition which may arise during the course of that disease; and no hospital interne, totally unacquainted and uninterested in our methods, can be trusted to grasp the specific indications upon which success depends.

But the assumption that the only tests of value are those made "in a hospital," by an "authority," is fallacious in the extreme. If one hundred or one thousand men, after using a remedy or a series of remedies in a given class of cases, report *uniformly* good results, must their opinions go for naught, as compared with a petty series of, say, one hundred cases reported by some hospital "authority," who may be,

and often is, based and unfriendly to all innovations, and this one in particular? Not only we but many hundreds of men (who are far from being "the little fellows at the cross-roads" you so scornfully mention) have openly reported hundreds of cases successfully treated and have given every detail of treatment, urging other men to try it and report their results, good, bad, or indifferent. As a result, a very large percentage of the working men of the profession *have* tested the method and found it good, so good, that one after another they report their death-rate as decreasing from 15 to 20 percent to 1 to 2 percent.

Imagination will not do this, Doctor—the great mass of practicians is not "sufficiently hide-bound" and is too intelligent to refuse something new—and better—because it does not come direct from one of the "authorities," "whose word is law"—be it true or false!

Now we come to your record of seemingly enormous doses of aconitine: You make the mistake of confusing crystallized with amorphous aconitine. If you had investigated this matter a little more carefully you would have learned that the former is much stronger than the latter. If you will turn to the article on aconitine in the text book of Alkaloidal Therapeutics, page two, you will find that the total daily dose of amorphous aconitine is given as 1 grain. Our reasons for using this aconitine instead of the crystallized are two-fold: In the first place, while our methods of making the mass and accurately mixing and subdividing it are as nearly perfect as human ingenuity and machinery can accomplish, there is obviously more chance of inequality in the extremely small dose of crystallized aconitine than in the larger dose of the amorphous. The second reason, however, is more important and that is that we have found the amorphous aconitine a much more uniform preparation as to its strength than the crystallized; and while we test every new lot procured we are saved much annoyance by using this uniform preparation instead of the variable crystalline.

The doses, therefore, used under Dr. Radue, were well inside the ordinary limit. In many cases, in fact the vast majority, we are able to get the results we desire with very much smaller doses; but Dr. Radue, who treated this case, is the only man who can say just what dose of any drug was required. Usually, when a very large quantity of our defervescent fails of effect, we find a feces-laden bowel. Empty this and the fever falls and is thereafter easily kept under control with aconitine and synergistic remedies. The rule which we advocate is to commence with the smallest known-to-be-effective dose, which should be given at short intervals and "to effect." This effect, either remedial or physiological, is absolutely the only criterion by which you can measure the efficiency of your medicine. In the majority of cases the small "dose," as text-books would have it, given in this way does the work; when it produces no effect the larger amount should be given—always in the same guarded manner. Thus given, the danger from these potent medicines is reduced to a negligible quantity.

Take aconitine, for instance. Many of the text-books of Materia Medica, blindly following the primary error of "authority," list this as a "dangerous" remedy, not to be used internally. But millions and millions of aconitine granules are being sold every year. The Abbott Alkaloidal Co. alone produces and disposes of over a million of these a month. But we have not heard of a single death from this aconitine. Have you?

I will next refer to the statement that from other methods you had succeeded in curing pneumonia in forty-eight to seventy-two hours. Well, Doctor, wouldn't you say, then, that these pneumonias could be brought to an end in less than the classical period? That is all we are contending for. If you think we claim no other method excepting our own will accomplish this, or that a pneumonia will never stop spontaneously, unaided by drugs, within less than the classic period, kindly point out the place where such statement of ours has been reported.

As to what you say of different forms of pneumonia you are undoubtedly correct.

I fully agree with you and will add that exactly such careful study of individual cases as enables you to make such statements are what we have earnestly endeavored to impress upon the physician as his duty. I haven't a word to say about aconite and veratrum and the condemnation with which they are viewed. These agents are too uncertain in strength and action for use in so perilous a disease as pneumonia, or in any other. When I give aconitine or veratrine I know what effect I am going to have, and I never deal in uncertainties when certainties are at hand. If I have taught anything with earnestness in the practice of medicine it is studying the remedies and the conditions presenting, and changing when those conditions change or for any reason the remedies prove unsuited. If you will show me where I have recommended one treatment for pneumonia in all forms and conditions, that is again something I would like to have you point out.

We'll Trust the American Doctor!

Now, as to the reports that are given to us and published in our journal: You probably, have not been in touch with the American doctor as I have, as teacher and medical writer, for thirty years. Let me say that I personally know hundreds, I might almost say thousands, of practising physicians to any one of whom I would rather entrust my life when ill than to William Osler. The American doctor, as a rule, is perfectly qualified to judge correctly of a new method of treatment when he takes it up and applies it in his practice; and you may accept as correct his statement that the new method gives him better results than his old ones until such statements are proven to be untrue. While he certainly makes errors in individual instances, any pessimistic attitude towards the thousands of good men who have reported to us favorably on these methods is not warranted by the facts.

You do not comprehend our attitude to the profession. This journal is a huge clearing-house for clinical matters. We get hold of a proposed method of treatment; we display it in our journal; many thousands of physicians see it and thousands who have the opportunity and desire to give it a trial. Thousands of reports come to us from all sorts and conditions of men in every conceivable phase of medical practice. If the general verdict is unsatisfactory we drop the remedy. If under some conditions it proves successful and not under others we make public announcement of the facts. If the verdict is overwhelmingly in its favor we advocate the remedy with corresponding energy. We are, therefore, expressing not our own views but the verdict of the profession.

Take Every Man's Opinion at What It Is Worth

Opinions from men in the field or reports of cases treated by them are given over their signatures and carry just what weight they contain. If Dr. Smith in Hatchamakatch discovers that he can get good results from a certain method of treatment he has a right to describe it. If his statements appear "worth while" to Brown, Jones, and Robinson and they adopt them with success, and so state, it seems to us generally satisfactory. If they, again, write their experience and as a result hundreds of other men win where they before lost, it strikes us Smith's little article was well worth space. Let us reverse the position: Smith writes twaddle; Jones fails to note the fact and follows Smith's method. He fails and says so; other men take up the matter and finally Smith and his theory are buried—or, out of his whole fabric, one brick is found to be sound. At the worst, we know that we must not do what Smith did and at best we are richer by one therapeutic fact. That, Doctor, also seems to us right, and part of "the duty of a medical journalist."

I fully agree with you that the truth is bound to prevail sooner or later and I am quite content to leave these matters for the profession at large to decide; besides, as you very well know, it does not at all follow that methods which prove success-

ful in city hospitals are thereby desirable to the general practician. He is the one we seek to reach, and he is quite as well able to decide what suits him as any city hospital physician, if not more so. We are going to keep hammering away at this thing just as long as we believe it to be right, as we do at present, and whenever we become convinced that there is a better basis for the treatment of pneumonia than the vasomotor one we shall drop this one and take up the new one. We cannot afford to advocate anything as the best one minute after we have found something else which is better.

In conclusion, Doctor, let me say that you are exactly the man we wish to have put this method in practice and tell us the results. There isn't anybody living who can tell as well as you whether the method suits the cases you treat in your locality. We will tell you all we know about the medicines and their application, but after all, we have to come back to you for the completion of this work. We have earnestly pled with the profession not to push us into the position of leaders, or men who want to be leaders, but have asked them to accept us as co-workers—men who are ready to do our part, who look to our brethren to do theirs and share with us in the glory. I trust I have succeeded in making our position clear. If there is anything you find obscure in this answer or on which I may be able to cast further light, I shall be glad to hear from you.—ED.

A CASE FOR DIAGNOSIS

A paper read before the Christian County Medical Society, January 17, 1907, by its president, and recounting the history of a desperate case with a doubtful diagnosis

By J. J. CONNER, M. D. (U. of M.) Pana, Illinois

LOYAL B. was delivered by me on the fourth of November, 1906. The mother was in labor for eighteen hours. The presentation was vertex, left occipito-posterior. Chloroform was administered, beginning at 9:43 a. m. I commenced the anesthetizing myself, but when the patient was partially under its influence I allowed an intelligent and discreet woman to finish the administering of it. I applied the Davis forceps to the head at the brim and proceeded to deliver. The head was large and solid and the woman's pelvis was a little flattened and the pubic arch somewhat narrowed, so that delivery proceeded slowly. The babe was delivered slightly asphyxiated at 10:20 a. m., but was soon revived, and there was scarcely a mark of the forceps on its head.

It thrived well on the mother's milk. It weighed at birth twelve pounds. The mother lost more blood than I had ever seen at a birth before and did not do very well for two weeks. She complained of a severe pain in the right lumbo-inguinal region. She said she had had considerable pain and soreness in this place for some time before the babe was born, but she did not complain of it at the time of her delivery. She had at one time some rise of temperature, preceded by a chill, but I think this was merely what is often denominated a "milk chill." She was up and doing her work in three weeks, having a family of four children to care for.

The Clinical History

On November 30 I received an excited telephone message from a neighbor of the family, saying that Mrs. B. thought her babe was dying and wanted me to come to see it at once. I went and found the

house in an uproar, as is often the case at such times.

The babe, I was told, had been well until the day before, when it had seemed to have a "cold." The babe had evidently had a spasm; it had rolled its head, the mother said, and could not be pacified. It was breathing rapidly and shallow; there were small rales to be heard in all parts of its chest; its head was well thrown back; it refused to nurse.

I had made up my mind that we had an ordinary case of bronchopneumonia in a child to deal with, when I happened to notice a peculiar discoloration of the skin at the nape of the neck. This discoloration was of a purplish or deep wine-colored nature. It occupied the center of the neck, being probably two inches or more in dimension. I inquired whether or not any of the other children were broken out, or if there was any rash of any description in the neighborhood. None of the children of the house were affected nor had been, but I was told that there were some cases of rash in the neighborhood.

The patient's temperature under the arm was 103°F.; the pulse was not obtained. The alkaloidal defervescent compound no. 1 was administered, two granules in a glass of water—a teaspoonful every hour—and a heavily greased cloth to encircle the whole chest was ordered. December 1, 11 a. m.: The temperature 103.5°F.; pulse not taken; respiration rapid.

The Course of the Case and Treatment

The back of neck is still red, and the same peculiar flush extends up to the occiput and to the angles of the jaws and downward to the level of the shoulders. The babe has nursed fairly well, but vomiting has occurred repeatedly. The bowels have not moved. On the initiative of some friendly neighborwoman an onion poultice has been applied to the chest and the greased cloth removed. The head is hot and the cool hand applied to the same seems to soothe the sick child, as it immediately becomes quiet on stroking the head with the moist, cool hand. The medicine was now ordered given every two hours, with the addition of infant anodyne no. 2. Cool, wet cloths to be applied constantly to the head and enough castor oil given to move the bowels thoroughly.

The babe was in such condition that I asked to be informed as to how it was early in the morning, but received no word all day.

Dec 2, 6 p. m.: At this hour I received a message to come to see the patient, and on repairing to its home I found it *in extremis*. Temperature 105.6° F.; pulse not obtained; respiration very irregular and peculiar—six movements of the chest would be made, and then an intermission for a period of time corresponding to twelve movements would occur. This irregular respiration was kept up in a regular manner for a long time, in fact, all the time I remained at this visit. The rash has spread to both cheeks. This rash is peculiar in that there is a line of demarcation as plain as in erysipelas, but there is no vesiculation; the skin is thickened and the underlying tissues are edematous.

I thought the child was dying, and I was appealed to to do something else. I ordered cranberry poultices applied. I was told that no cranberries could be obtained on Sunday night, and I then said they might try gooseberries. The onion poultices were still applied, and to do something for the embarrassed breathing I ordered a mixture of bruised raw onions and sugar so as to make a syrup of them. This was to be given p. r. n. I also gave ipecac and calomel in small doses, frequently repeated. I left with the expectation that the babe would soon pass away.

Child Better, But Still Very Ill

Dec. 3, 8 a. m.: The temperature 103.6° F. The patient is otherwise much improved. It has nursed; is quite strong—it arches the neck and holds up its head while lying on the belly as we are examining it. The rash has progressed upward over the right side of the head so that the temple and right eye are involved, the right eye being closed, and on the left side

the rash has not arisen so high but the lower half of the left cheek is involved. There are as yet no true vesicles, but the scarf-skin in a place or two has peeled off. The right ear is involved, but the rash has not involved the skin below the shoulders.

I was told that the gooseberries had been applied as I had directed, but on account of the distress of the babe, evidently from the smarting due to them, the poultice had to be removed. I now took occasion to remind the old officious woman who had wanted me to apply iodine to the affected region, that had I put on iodine to the delicate inflamed skin of the babe, it would not have been able to endure the pain. However, it may be that the smarting from the gooseberries had the effect of arousing the flickering vitality of the child and so had really been of good service in that respect, but which service came wholly unexpectedly. There has not been much nausea—vomiting has taken place but once. The ipecac and calomel was ordered continued in small dose every two hours and the onion syrup to be given p. r. n. I now applied thoroughly to the rash ichtholdine compound, the same to be kept on constantly.

The Rash Now Disappearing

Dec. 4, 9 a. m.: Temperature 104.5° F.; patient is hoarse. The rash has invaded the mouth and throat. The lips, mouth and throat are quite raw, but notwithstanding this additional involvement the babe has slept and nursed and the bowels have moved well. The rash is disappearing externally. I ordered minute drops of castor oil to be allowed to trickle down the throat, this to be repeated frequently, so that the raw mouth and throat might be protected. I put four of the alkaloidal granules, the dosimetric trinity, in three ounces of water, a teaspoonful of the same to be given every two hours, i. e., at 10, 12, 8, 6, 4, and 2 o'clock. The castor oil was also to be allowed to trickle into and down the nares.

Dec. 5, 9 a. m.: Temperature 104° F.; the rash subsiding; the mouth and throat not so dry; the patient seems to be doing well. Treatment continued.

Dec. 6, 4 p. m.: The patient decidely better; rash nearly gone. There is some roughness of the scarf-skin, which rolls in thin flakes in some places. The patient nurses and sleeps well; there is but little cough; the patient looks bright. The bowels are moving finely; the discharges are green. The temperature shows 100.2° F. The treatment is continued, but the dosimetric mixture is to be given at longer intervals, i. e., at 6, 9, 12, 3 o'clock. The babe was doing so well that I thought it not necessary to call until requested.

A Relapse with Return of Rash

Dec. 10, 12 m.: The babe has relapsed. Temperature is 104.9° F.; respiration short and rapid, but not moaning. Patient has been doing finely until this morning, when it took to vomiting and rolling its head, so the mother says. I fear involvement of the ears by the erysipelatous process or we may have simply an extension of the bronchopneumonia. The face and head are pale, only a few small-pointed papules on the scalp. Treatment: Ipecac and gelsemium. Ichtholdine is to be dropped into the external meati.

Dec. 11: A rash is covering the body, arms, forearms, hands and lower extremities down to the middle of the legs. This rash has the appearance of German measles, although the dorsum of the hands are too much swollen to be typical of that. The temperature, 102.6° F. The treatment is continued.

Dec. 12, 4 p. m.: The patient did not rest during the night. The rash has faded. Respiration, 60 per minute; there is dullness of left side of chest, anteriorly and posteriorly. Temperature, 106.4° F. Treatment: ℞.: Alkaloidal defervescent granules no. 1, four; water, 24 teaspoonfuls. S.: A teaspoonful every hour. *Prognosis grave.*

Dec. 13, 1 p. m.: The babe has vomited frequently—evidently from the effects of the veratrine in the medicine. The babe's nose has been filled once or twice with

goose grease and this has aided much in the expulsion of much phlegm, to the evident benefit of the patient. The patient on the whole seems better. Respiration 30 per minute and deeper in character; temperature, 105° F. Treatment: ℞: Defervescent granules, two; water, 24 teaspoonfuls. S.: A teaspoonful every hour, and the dosimetric trinity every three hours. Apply oiled cloth to the chest; open the bowels with castor oil.

Dec. 14, 3 p. m.: The bowels have acted well. Patient rested well last night and was very bright on arising this morning. There is a rash on the face which was slightly in evidence yesterday. It showed plainly on the nose this morning and now has spread to the cheeks. What is this eruption? Surely, it is some kind of infection, but what kind? The mother says the lochia have ceased and there is no soreness of the mammæ or nipples. The babe's navel is well. Temperature, 104.5° F. The treatment continued.

Eruption Again Disappearing

Dec. 15: The eruption is again disappearing. Treatment: The dosimetric mixture continued, and locally put on a compound kaolin-paste poultice in the form of jacket covering the entire chest.

Dec. 16: Patient better. Temperature, 104° F. Respiration easy.

Dec. 17: The patient still better; temperature lower. Still wearing the kaolin-paste jacket. The mother says this paste jacket has helped the patient "more than anything else." The patient is to take the defervescent mixture p. r. n., as the fever requires.

Dec. 18: The father reports the babe doing well. No fever; bowels open; nurses well; sleeps well; breathes well. Treatment continued.

Dec. 22: Father reports the babe doing well except for a troublesome cough. The bowels are open. The dosimetric granules are continued and a mixture for the cough is ordered, consisting of Mulford's bronchitis tablets no. 3, eight tablets; with glycerin and water, each two ounces. Sig.: One-half to two-thirds of a teaspoonful once in three to four hours when awake.

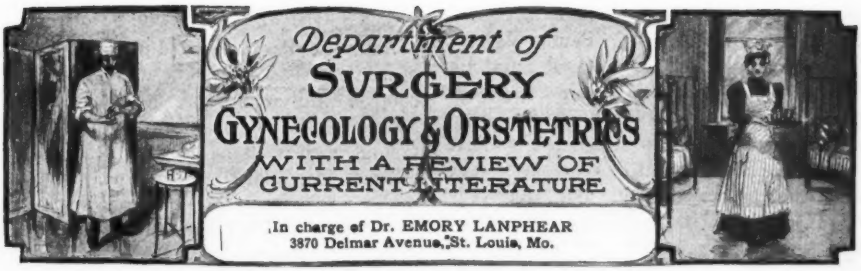
Since the last date I have not heard anything from the patient but presume that it is doing all right.

My diagnosis is bronchopneumonia with some other kind of infection—either erysipelas or erythema in the beginning and possibly German measles later on. I should like to have the society make a diagnosis.

—:o:—

This is a very interesting case and we hope that our readers will comment upon it freely. The recovery of such a desperately ill patient certainly reflects great credit upon the doctor—for the treatment was admirably adapted to meet the indications, whatever the *name* of the disease.—ED.

Ideas go booming through the world louder than cannon. Thoughts are mightier than armies. Principles have achieved more victories than horsemen or chariots.—Paxton.



THE RENAISSANCE OF THE LIGATURE

An interesting chapter of medical history. Ambroise Paré, a brief sketch of his life and work, and one of his contributions to the uplifting of a despised art — surgery

By FRED FLETCHER, M.D., Columbus, Ohio
Assistant Professor of Anatomy, Starling Medical College

"I sent him to his home merry, with his wooden leg, and was content, saying, that he had escaped good cheap, not to have been miserably burnt"—Paré (1552).

As a mode of hemostasis the ligature was known through practically every stage anterior to that which ensconces the Art of Aesclepiadæ and Cos in mystery, yet as a legitimate procedure it was utilized only as a *dernier ressort*. We trace its vindication through the tumultuous period of animism; through a void of chaos, corrupt teaching and iniquitous superstitition; through generations of crude and superficial anatomical knowledge—on through the flight of centuries until "Reason and Experience" in the "Age of Reform" stayed its oblivion, and, in the yesterday of Time, we witnessed its triumphant march with Listerism to a well-nigh indispensable sphere in the art of surgery.

Ancient Treatment of Traumatic Hemorrhage

For two thousand years, from the time of Hippocrates (450 B. C.), to that of Paré, traumatic hemorrhage was the opprobrium of the surgeon. Writers of the "Philosophical Period" of remote antiquity described methods and advised, under certain circumstances, the use of the ligature. Hippocrates gives it a place in the cure of fistula but preferred the use of styptics, the actual cautery and torsion. The Alexandrians were familiar with its use, for, two thousand years ago (before the Christian era), Celsus, born 30 B. C., speaks of its use as a well-known fact and recommends its application. In the chapter on "Wounds" he admits that patients frequently succumb during an operation from hemorrhage, and advises "to take hold of the vessel which discharges blood and tie it in two places, providing ordinary means do not prevail against the flow of blood." Archigenis and Galen both mention the tying of vessels for the purpose of stopping hemorrhage, and the name of Antyllus bears testimony to the skill of the Roman surgeons. Every writer of the Greek and Arabian schools made repeated reference to the ligature, and it is certain that the management of hemorrhage was not lost in oblivion during even the darkest period of the history of medicine.

Constricting bands, as introduced by Archigenis, constituted the primitive tourniquet. The hemostat was known, and torsion as a means of "stanching a flux of blood" was advised by Hippocrates, Galen

(131 B. C.), and, at a later date, advocated by Rhazes (850 A. D.). Paulus Agineta advocated the twisting of vessels, and his teaching was preserved by the Italians of the sixteenth century. The primitive hemostat, or "crow-bill," as designated by Paré and Guillemean, was an instrument of rude and clumsy pattern, made not necessarily to grasp the isolated vessel but the nerves and soft structures to be included in the knot.

Fabricus Hildinis and Dioneys (the last half of the seventeenth century) made mention of, but did not recommend, the ligature. Even so late as 1761, W. Sharp saw cause for complaint at the restricted practice of ligating bleeding vessels, and at the close of the eighteenth century the actual cautery was still the customary method of arresting hemorrhage in the Hotel Dieu of Paris.

The Brutalities of Middle-Age Surgery

Retrogression was the fate of surgery for one thousand years after Celsus. Never was the application of the art more brutal than when Arabians operated with red-hot knives, nor the suffering and torture more exquisitely cruel than during the Dark Ages, when hot irons, burning oil, and molten pitch were applied to the bleeding stumps to control hemorrhage. Not until the middle of the sixteenth century (1552) do we witness any departure from the shackles imposed by authorities of the past, and even then no universal acceptance of a method calculated to make surgery a blessed art. Surgery, however, was raised from its chaotic status, rescued from the ignorant barbers, bonesetters and bathers, and given a legitimate standing.

Park says concerning this period: "There was an awakening in every department of knowledge; it was as if the mind of men had been dormant and lost their power of receptivity, and after a long period of torpor, awakening in a new atmosphere, amid new surroundings; as if there had burst upon them a sudden appreciation of ability to do things hitherto undreamed of, and to acquire knowledge such as hitherto had been possessed by none."

Paré Appears Upon the Stage

Ambroisé Paré appeared upon this stage of medicine—a genius, whose original ideas, coupled with circumstances, intrepidity and courage, made glorious his age, and a name, famous, as it is inseparable from the history of medicine. Paré was born at Laval in the year 1510, and from a station of poverty arose to the very pinnacle of fame, "to the position of surgeon to four kings of France." He served an internship of three years (1532-1535) in the famous Hotel Dieu de Paris, and there laid the foundation of his wonderful skill in the art of surgery. Here in this same "Theater of Wounds and Disease" was instructed his judicious successor, the celebrated Guillemean.

At the age of twenty-six years Paré was made surgeon and sent with the great army of Thurin, by the King of France. One year later we see him upon the field of battle, "but a youth in years, yet old in knowledge and experience, and often called to see hurt people." In his "Apologies" he recounts his experience at the Battle of Pas de Suze (1536) and says, "Now at this time I was a fresh-water soldier, and had not seen wounds made by gun-shot at first dressing." Being a pupil of John de Vigo, physician to Pope Julius II, he was, therefore, conversant with the work and teachings of his master, who advised, as a requisite to the cure of gun-shot wounds "to cauterize with the oyl of elder scalding hot."

At First Paré Was Timid in War

Paré confessed to having experienced, at the first sight of war, a feeling of timidity. He was a spectator rather than an actor, until stimulated to courage by the continuous procession of opportunities. Later we see him upon the stage of action, passive, as it were, to the horrors of war; his ears closed to the shrieks and agonizing torments of unbearable pain, as he wields the hot iron, applies burning oil and caustic medicines to dismembered parts. He hoped only to imitate—fame seemed an impossible goal; he acted in a wise subservient to his superiors and carried out the wonted methods of treatment until expediency, rather than that

which he considered right, occasioned his first infraction of routine.

Concerning this incident which proved an epoch-making event in the annals of surgery he says: "At last I wanted oil and was constrained thereof to apply a digestive of the yolk of eggs, oyl of roses and turpentine. In the night I could not sleep in quiet, fearing some default in not cauterizing, that I should find those to whom I had not used the burning oyl dead." This anxiety occasioned his visiting the patients at an unusually early hour on the following morning, and he records the finding of his victims not only alive but in a physical condition far in advance of his fondest expectations. He says: "I found those to whom I had applied the digestive medicine to feel but little pain, their wounds without inflammation or tumor, having rested comfortably well that night; the others that were burnt with scalding oyl were feverish, tormented with much pain, and the parts about their wounds swollen, and I resolved with myself, never so cruelly to burn poor men wounded with gun-shot."

A Famous Balsam for Gun-Shot Wounds

Two years later Paré obtained from a certain surgeon, "far more famous than all the rest for the artificial and successful cure of gun-shot wounds," a famous balsam. The ingredients of this nostrum and the method of its application have been so many times erroneously stated that the writer quotes Paré verbatim: "I labored for two years with all diligence to gain his (the famous surgeon's) favor and love, for I was anxious to know what remedy it was he honored with the glorious title of 'balsam'; yet I could not obtain it."

On the death of Marshall of Montepan, Paré decided to return to Paris, and before leaving Thurin he implored the surgeon that "it would neither hinder nor discredit him to reveal the formula of the balsam." Paré says: "When he heard this, he made no delay but presently wished me to provide two whelps new-pupped; one ounce of earthworms; two pounds of oyl of lillies, six ounces of Venice turpentine, and one ounce of aqua vitæ. In my presence he boiled the whelps, put alive in the oyl, until the flesh came from the bones; then presently he put in the worms, which had been killed in white wine, and then he boiled them in the same oyl so long, till they became dry and spent their juice therein. Then he strained it through a towel, without much pressure, and added the turpentine to it, and lastly the aqua vitæ; calling God to witness that he had no other balsam wherewith to cure wounds made with gun-shot or bring them to suppuration. Then he sent me away rewarded with a most precious gift, requesting me to keep it a great secret and not to reveal it to any one."

Paré used this balsam as a routine, "always with happy success," and, as he stated, "not scalding hot, but scarcely warm, and poured into the wound."

For Thirty Years a Military Surgeon

Paré's medico-military career extended over a period of thirty years and was filled with many exciting adventures and extraordinary incidents. He resided at Paris during the interim of revolutionary calm, and here, in the year 1556, compiled his surgery. Toward the close of his life he was constrained to vindicate himself against the refutations of adversaries, and published "An Apology or Treatise Concerning Divers Voyages." In this he cites the scope and character of his work; tells of his being present at battles, skirmishes, assaults, and the besieging of cities, and records many "Memorable Histories."

Paré was the first to ligate *en masse* for refractory hemorrhage; he advocated methods which revolutionized the treatment of gun-shot wounds; he gave amputation a firm place among surgical operations, and, if not first to suggest the ligature, he was first to demonstrate its utility in primary amputation. That he fully appreciated the ligature as a mode *par excellence* for the control of hemorrhage, is obvious from the following advice: "In amputating take hold of the vessels lying beneath the flesh, draw them out and bind with a strong double thread." The actual "Renaissance of Surgery" dates

from the time King Henry besieged Danvillers (1552), when, during the battle, Paré completed the partial amputation of a leg made by a cannon ball; omitting for the first the use of the actual cautery. He says: "I was fain to finish the cutting off which was done without applying hot irons." Paré returned to Paris a few weeks later, and was accompanied by the patient "whom he sent home merry, with his wooden leg, and content, saying, he had escaped good cheap, not to have been miserably burnt."

Few Champions Found for the Innovator

That Paré found few contemporaries to champion his cause does not seem strange. It should be remembered that even anatomy was imperfectly known, and that the time antedates the discovery of Harvey by practically one hundred years. The age was corrupt and revolutionary and the minds of men actuated only by traditional authority. The ligation of vessels was a departure so radical and contrary to ancient teaching and custom that it not only failed to invite imitation but was rejected, upheld to scepticism, and its originator to ridicule.

An adversary of repute scorned Paré in the following way: "Ill then and too arrogantly a certain indiscrete and rash person (meaning Paré) would blame and condemn the cauterizing of vessels after the amputation of a rotten and corrupted member, much praised and commended, and always approved by the ancients; desiring to show and teach us without reason, judgment or experience a new way to tie vessels, against the opinion of ancient physicians, taking no heed or being well advised that there happens far greater perils and accidents through this new way of tying vessels, than by the burning of said vessels." Continuing the argument, he says: "If the needle shall pick a nervous part, yea, the nerve itself, or this new and unaccustomed method absurdly constrain a vein, there must necessarily follow a new inflammation, from the inflammation a convulsion, and from the convulsion—death. Moreover, the pinchers (hemostats) which he thinks draws the vessels out, brings no less pain, than do the cauterizing irons. If anyone having experimented with this new method of cruelty has escaped danger, he ought to render thanks to Almighty God forever, for through His goodness he has been freed from such tyranny, seeing rather the executioner than his methodical surgeon."

Paré's Response to an Adversary

Paré answered his adversary by saying: "O what sweet words are here for one who is said to be a wise and learned doctor. He remembers not that his white beard admonisheth him not to speak anything unworthy of his age, and that he ought to put off and drive out of him the rancoir and envy conceived against his neighbor." Paré cites the works of Hippocrates, Celsus, Galen, Avicen, Guido, Hollier, Vesalvius, John de Vigo, Galmetheus, Tegantilus, Argelleta, Andreas and d'Alechamp (giving book, chapter and leaf) as authorities who commend the tying of vessels. He says: "You have your eyes shut and all your senses dulled when you speak against so sure a method. I would willingly ask you, if, when veins are cut transversly and retracted toward its original, whether you would make no conscience to burn until you had found the orifices of the veins and arteries; and if it be not more easy, only with a crowbill to pinch and draw the vessel, and so tie it? We see daily the ligature of vessels, praticed with happy success, after amputation of a part, which I will now verify by Experience and Histories of patients still living.'

A Notable History

"The 16th of June, 1552, in the presence of Mr. John Lieband, Doctor in the Faculty of Physics at Paris, Claud Viran, sworn surgeon; Mr. Mathurin, surgeon of Monsieur de Sourvray, and myself; John Charbonel, Master Barber, surgeon of Paris, did with good dexterity amputate the left leg of a woman tormented the space of three years with extreme pain, by reason of great caries which were in the (ankle) bones. She is called Mary of Hestel, aged 28 or thereabouts, wife of Peter Herve, Esquire of the Kitchen to the Lady Duchess of Uzes, dwelling on

the street of Verbosis at the sign of St. John's head, in Paris. Charbonel cut off the said leg the breadth of four large fingers below the knee. After he had incised the flesh and sawed the bones, he griped the veins with a crow-bill, than the arteries, then tied them, from whence I protest to God, in all the operation, which was suddenly done, there was not spilt one porrenger of blood. I bid Charbonel to let it bleed more, following the precept of Hippocrates, that it is good in all wounds and inveterate ulcers to let the blood run and make the parts less subject to inflammation. The said Charbonel continued the dressing of her who was cured in two months, without any flux of blood happening into the part, or other ill accident."

Paré cites other cases in which amputation had been successfully performed, and mentions the ligation of the temporal artery in one and the jugular vein in another patient for the control of traumatic hemorrhage. In this connection the writer sees fit to relate a case mentioned by Paré, apropos of illustrating the true meaning of modern surgery, contrasted with that practised by this celebrated surgeon in a supposedly perfected state. In Paré's day surgical methods were crude, theories were misleading, reason was erroneous and the art brutal. Anesthesia was unknown, and the soothing effect of "a glass of laudanum negus" a chimera. It was an age when straps restrained the frenzy of agonizing pain and the dexterity of the surgeon assuaged the torments of suffering.

In 1536 Paré amputated an arm at the elbow, because of a compound fracture of the forearm. The case was desperate and "shunned only with a prognosis" long before he was prevailed upon to undertake the cure of the wretched man. Paré disarticulated the member; controlled hemorrhage by applying hot irons, made free incisions and cauterized the arm for the purpose of drainage. He tried many "restrictive medicines" to prevent an extension of the inflammation to the axilla and thorax, yet convulsions (as a complication) seized his patient. He apologizes for their occurrence by saying: "They occurred not through any fault of him (meaning the patient) or me, but because of the naughtiness of the place wherein he lay. It was in a barn filled with chinks, opened on every side, and in the midst of winter raging with frost and snow. Neither had he fire or other things necessary for the preservation of life, or to lessen the injurious effect of the air or place. Now his joints were contracted, his teeth set, his mouth and face set awry, when I pitied his case and had him carried to a near-by stable which smoked with horse-dung." Here the patient received his warmth from the fire of two chafing dishes, and after being anointed with an anticonvulsive liniment, he was "straightway wrapped in a warm linen cloth and buried, even to his neck, in hot dung." The patient remained submerged for a period of three days, and it is recorded that he suffered no greater inconvenience than "a flux of the belly and profuse sweats; and that little by little be began to open his mouth and teeth, which had been set and closed shut."

Paré resorted to mechanical means for opening the patient's mouth, and in his surgery gives an illustration of the primitive mouth-gag used in this particular case. After prying apart the jaws, "two willow sticks were introduced to keep the mouth open until he had recovered power to eat." The patient was now given "forced feeding"—an abundance of milk and meat—and by this means was freed from his convulsions."

On the third day, and coincidently with his resurrection, a cure of the arm was again undertaken by searing the stump and end of the bone with an actual cautery, so as to dry up the perpetual flux of corrupt matter. "Lastly, it came to pass that by God's assistance, my diligence and the means I used, he at length recovered. Wherefore I would admonish the young surgeon that he never account a case so desperate as to give him up for lost, or be content to let him go with a fatal prognosis, for as Ancient Doctors write, that in Nature, so in Disease, there are Monsters."

INTERNAL CANCER AND THE X-RAY

A peculiar operation for internal malignant growths, whereby the cancerous mass is brought to the surface or near it, so that it can be made amenable to the influence of the x-ray

By EMORY LANPHEAR, M. D., Ph. D., LL. D., St. Louis, Missouri
Formerly Professor of Operative Surgery in the Kansas City Medical College and Professor of Surgery in the St. Louis College of Physicians and Surgeons

FOR several years I have been making a rather peculiar operation for incurable internal malignant growths, with such gratifying results that I desire others to make use of the method in appropriate cases. All of the cancers treated have been of the stomach, cecum, colon, sigmoid and spleen; no patient has as yet been entirely cured, but in one instance life was prolonged more than three years, the cancerous mass in the gut shrinking from the size of a large cocoanut to that of a small egg and death occurring from secondary cancer of the liver. In another case gastrojejunostomy, with permanent exposure of the cancerous pylorus, gave perfect relief and the patient is still in good health nearly two years after operation. Other patients have also been greatly benefited. The method is as follows:

1. A long incision is made directly over the tumor.

2. If on exposure the cancer is found to be inoperable (or if the patient has declined radical operation, as is often the case), the fecal current is short-circuited by lateral anastomosis if the growth involve the gut, or gastrojejunostomy is made if the cancer is in the stomach, or a colostomy made if the sigmoid be the site involved.

3. The parietal peritoneum is carefully separated from the preperitoneal tissues to the extent of one or two inches on either side of the primary incision—enough to permit its being turned inward to reach the base of the cancer without much tension.

4. The cancerous mass is liberated from adhesions and brought up into the wound as fully as possible.

5. The parietal peritoneum is carefully sutured around the base of the tumor, in such way as completely to shut off the general peritoneal space on every side. This makes the growth entirely extraperitoneal as soon as adhesions form.

6. The skin is also brought down around the base as far into the depths as possible and sutured in such way as to make a "cup" in the bottom of which lies the tumor.

7. Gauze is packed around the mass most carefully to help support the deep stitches while the necessary adhesions are forming.

8. Sterilized dressings are applied and not disturbed for ten days.

After-Treatment. As soon as adhesions are strong enough to prevent the viscera from forcing through—usually by the fourteenth or fifteenth day—the surrounding parts are protected by lead-foil and exposure of the malignant growth to the x-ray made as often as desired. The tube can be brought just as near the cancer as desired; there being no intervening tissues, results are noted surprisingly soon.

The x-ray treatment must be active because the raw surfaces granulate and the wounds close with astonishing rapidity, three or four weeks being the usual time required to complete healing.

Now that injection of trypsin is in vogue, this method of operating may also be adopted for the purpose of permitting repeated injections directly into the substance of these hitherto inaccessible cancers. It presents advantages which will at once be apparent to any surgeon.

THE TREATMENT OF UTERINE DISORDERS

A number of suggestions concerning the internal and local use of remedies which directly influence the pelvic organs. Too much importance placed upon surgical measures

By FINLEY ELLINGWOOD, M. D., Chicago, Illinois
Editor of Ellingwood's Therapeutist

IN the treatment of chronic uterine disorders, I am convinced that too much importance is placed upon surgical measures and not enough upon the use of remedies which directly influence the pelvic organs. In the first place, local applications are apt to be altogether too irritating, and, beyond the relief of ulceration and acute hypertrophy and catarrhal conditions, but little benefit is obtained from their use. The common practice of curetting for endometritis, I am confident, is far from the best measure, and the surgical treatment of conditions at the menopause or subsequently are, in my mind, often questionable.

I have faith in the thorough irrigation of the vagina, and in the washing out of the uterine cavity every two or three days with peroxide of hydrogen or some other indicated remedy, after Woodward's method. There is no doubt in my mind that this measure must, indeed, supersede curetage in many cases.

While replacements are usually only temporary, directly prescribed remedies will surely and correctly relieve the conditions which result from them. There is no doubt that there are many patients who have misplacements and even more serious conditions of various forms, for years, without suffering any inconvenience from them. In fact, I attended a short and easy labor at one time, in a woman who had never been ill and had given birth to ten children; and at the time of my first examination I discovered at least three old cervical lacerations from which she had suffered no unpleasant results.

In the use of directly indicated medicines every remedy must be studied with reference to its own influence. For instance, macrotys influences the circulation of the pelvis through its influence upon the central nervous system. It produces contraction of the fibrillæ of the womb in a manner devoid of irritation, unlike that induced by ergot; in fact, it soothes nervous irritation, and is thus a valuable remedy when combined with gelsemium, to control pelvic pain, being especially valuable in congestive dysmenorrhea, in neurotic women.

It is of much service in amenorrhea when the nervous system is involved. A common symptom which suggests its use is the severe muscular aching with any uterine disorder. Helonias restores tone to the pelvic organs, when from misplacements of any character, there is a sensation of dragging or weight in the lower abdominal regions. If leucorrhea be present, these two remedies combined will prove of much service. They are indicated in subinvolution after a tedious labor, and should be administered freely without fear of unpleasant results.

If there is continued nervous irritability, the sodium bromide may be given at the same time. It will be found to exercise a direct influence, not only upon the nervous irritability, but upon the pathological processes involved in the subinvolution.

Speaking of subinvolution, I have quickly corrected this condition in a subacute form by using the remedies named and at the same time applying a very mild Faradic current over the uterine fundus. I have given the patient marked relief by this means within a few hours.

There are certain forms of amenorrhea which are accompanied with nervous excitability or hysteria, in which pulsatilla in small doses should be used. If specific medicines be added to four ounces of

water and a teaspoonful be given every two hours, the most satisfactory results will occasionally be produced. This remedy acts nicely in conjunction with macrotys as mentioned above. The indications for its use are where there is mental perturbation with apprehension of trouble, when sexual exhaustion or great weakness in the reproductive organs are present, with nervous phenomena.

Another remedy which should have attention in the treatment of uterine disorders is mistletoe. This agent acts upon the uterus directly, causing, during labor, an increase of natural pains in a natural manner. Given for chronic conditions, it corrects amenorrhea and dysmenorrhea and will be found of some avail in regulating the irregular menstruation of young girls.

Another valuable remedy is senecio aureus. This is indicated for general atonicity of these organs, exercising a favorable influence in menorrhagia and metrorrhagia. It acts in harmony with helonias and can always be given in conjunction with macrotys. It regulates the menses and assists in controlling leucorrhea.

I may be permitted to interject a paragraph here concerning the treatment of leucorrhea, and state that those periods of suffering from this, as a continued process, will be more readily relieved by the remedies indicated if salt be omitted from the diet of the patient for a given period of time.

Other important remedies are caulophyllum, aletris, and leonurus. The influence of each of these remedies is that of a sedative tonic, reducing irritability and increasing the tonicity of the parts.

I am confident that the sympathetic nervous system is greatly impaired in many of these cases. I have found damiana to be a direct tonic and restorative to the sympathetic nervous system, and thus many reflex conditions induced by uterine disorders will be relieved by the same. I prize it more than any other in the treatment of the menstrual irregularities of young girls who are suffering from the results of errors at the time of the establishment of the menses, causing serious disorders. I give from six to ten grains of the extract of damiana, three times a day, with most excellent results.

At some future time I shall write an article on the treatment of the disorders of gestation. At the present I will call the attention of the readers to the use of mitchella, or partridge-berry, in preparing women for labor. I have seen results that would startle a disbeliever, in patients where this remedy alone was used during the last three or four months of pregnancy. It is often impossible to convince those who have not treated the unpleasant phenomena that are apt to occur at this time with medicine, of the good which medicine will accomplish if prescribed carefully and with strict reference to its specific action.

THE TECHNIC OF SKIN-GRAFTING

The modification of the Thiersch method of skin-grafting, embodying the use of wire-screening. A resume of its technic and an outline of its advantages

By HARRY W. SIGWORTH, M. D., Waterloo, Iowa
Attending Surgeon, Presbyterian Hospital

THE Thiersch method of securing and placing skin-grafts is the one which I now employ, as I have found the mode to be quicker and easier of accomplishment than any other I have used.

First and foremost: to secure good results the field for growing grafts must be aseptic and free from all debris, especially lint or small particles of cotton from previous dressings. It is usually best to

curet the ulcer or granulating surface until slight bleeding is produced, dry it, and cover the surface with grafts after Thiersch's method, being sure to cover the wound well up to the edges.

The next step is to take a piece of "wire-screening" (previously sterilized) and cut a piece large enough to extend over the edge of the grafted surface, one inch, thus protecting the edges as well as centers. This must be held in place by the aid of adhesive plaster, strapping the wire-screening securely in place. Then a dry dressing must be applied.

The advantages of this method are:

1. It admits of washing or irrigating the wound without destroying the grafts.

2. It is possible to keep the granulating surface under constant supervision, the openings in the wire-screening being like a window through which everything can be watched.

3. It gives the wound an outlet for discharges; hence aiding nature in every healing process.

4. The new growth of epithelium is not disturbed by adhering to the dressings when removed.

5. It protects the granulating surface even after healing has partially taken place and affords a support for the new growth of epithelium that grows from the edge of grafts.

I have found this method of screening grafts superior to all others, as it can be used on any portion of body, molding itself to any angle one may wish to improvise.

THE OBSTETRICAL FEE

Should the obstetrical fee regulate the amount of care to be bestowed upon the parturient woman? An inquiry into the ethics of this question

By FRANK H. JACKSON, M. D., Houlton, Maine

IN the February number of THE AMERICAN JOURNAL OF CLINICAL MEDICINE I note under miscellaneous articles the remarks of Dr. D. of Iowa on "Obstetrical Fees and Asepsis."

The remarks in question are based upon a footnote in the December number of the journal entitled "Why an obstetrical case should not be conducted with the same regard for asepsis as a surgical case is a mystery." The footnote is an excerpt from an article written by me on "Puerperal Sepsis," that appeared in *The American Journal of Obstetrics*, Vol. LIV, No. 1.

Anyone reading the doctor's article must be impressed by the fact that the "*quid pro quo*" for service rendered permeates the entire article, and if one is to judge from his letter, his obstetric practice has not been cast among pleasant fields.

One of the most important reasons, according to the doctor, why surgical cleanliness is impossible in the section of the country in which he practises is that "miserable fees are paid for obstetric service." But in my humble judgment big fees or little fees cut but little figure in the question. While it is true that we practise medicine for a livelihood, it is equally true that when we accept any case of any kind we are morally (and legally) obliged to render the patient the best service we know how to, regardless of the amount of fee to be received; the fact that only one-tenth of the actual value of services rendered is to be received constitutes no valid reason why a case should not be conducted properly. Doctor D. is not obliged to take such work if the fees are too small; but when he or any other man does accept a case, he is in duty bound to do the work as it should be done.

Supposing the doctor were so unfortunate as to have to defend a malpractice suit for

sepsis, I hardly think he would enter a plea in court that he rendered such service as he expected to be paid for. I am sure such a defense would be most comforting to the legal gentleman representing the plaintiff.

I fail to see how the added cost complained of by the doctor that is needed to protect the "ingrates". by using what the doctor admits as necessary precautions, should send him or any other physician to the poorhouse. Soap, water, bichloride, lysol, etc., are not so expensive as the doctor would have us believe; nor is the time required for their proper use so very valuable that we cannot afford to use it.

If Doctor D. or any other man is content to conduct his obstetric cases in an unsurgical manner, he is to blame if the patient suffers on that account and should be willing to recompense any person who is injured by his neglect. I do not write as an obstetrician, as I do very little of this class of work, but when I do have a case, I do my best to make the procedure a surgical one, and have yet to regret doing so. People *usually* will pay for a good article; and to get good prices one must do good work.

The doctor says that fifty dollars should be the charge for an obstetric case. That is a point for him to settle with the individual patient; but I think that whether fifty dollars or ten dollars is agreed upon, the woman should be treated properly.

::: SURGICAL THERAPEUTICS :::

IODOFORM FOR CIRRHOSIS OF LIVER

Capsules of iodoform (dose 1 decigram to a half gram—1 grain to 7 grains) have been highly extolled as a remedy for cirrhosis of the liver, especially for the stage of hypertrophy. The iodoform may be given three times a day, but its use must be long-continued to effect great improvement. The urine must be carefully watched for hematuria and albuminuria and instantly discontinued or the dose reduced to the minimum on the appearance of either, as death has occurred from too much iodoform, the autopsy showing glomerular nephritis.

PHENOL A LOCAL ANESTHETIC

For making small incisions in the skin (such as opening an abscess, cutting out the end of a needle, etc.) anesthesia may be produced by the local use of liquefied phenol, i. e., 95 per cent carbolic acid, when no other agent is at hand. A spot of an inch or more may be painted with the pure phenol; for a brief space of time there will be a burning sensation, succeeded almost instantly by a cool feeling as the skin turns white and shrivels. In a few minutes the skin may be cut without pain, but underlying structures are not insensitive to the knife. It does not seem to interfere with healing under a sterile dressing, and possesses the advantage of thoroughly sterilizing the superficial layers of the skin.

BELLADONNA FOR CARBUNCLES

A most soothing, agreeable application for a forming carbuncle is equal parts of extract of belladonna and ichthyol smeared on cloth and applied to the inflamed area and an inch or more of adjacent skin. If used early, suppuration sometimes is arrested, and always much suffering is prevented.

USE OF DIOXIDE OF HYDROGEN

Entirely too much "peroxide" is used in the treatment of suppurating wounds as also too much water and liquid antiseptics of all sorts. The best treatment for a suppurating, granulating surface is merely to wipe out, gently, with a little absorbent cotton or

gauze, all surplus secretion, exercising great care not to disturb the delicate granulations from which the new tissues must be formed. This is particularly applicable to pyothorax. The hydrogen dioxide is applicable chiefly to those suppurating cavities which do not drain well and cannot be reached with the cotton; and also to those suppurating surfaces which show a tendency to be abnormally slow in healing—here the irritating effect being just sufficient to stimulate the sluggish granulations.

IRON TONIC FOR CONVALESCENTS

Patients who have lost much blood often do better during convalescence if given arsenic at mealtime and a good iron mixture an hour afterwards. A most excellent combination is the following:

Tincture of chloride of iron,	10.0 (drs. 2½)
Dilute acetic acid	8.0 (drs. 2)
Syrup	112.0 (ozs. 3½)
Whisky	384.0 (ozs. 12)

Mix thoroughly and add:

Carbonate of ammonium	1.50 (grs. 20)

Mix. Direct: One tablespoonful one hour after each meal. Chemists will declare this an "impossible" prescription, on account of the chemical changes which take place on mixing. But if the bottle be corked tightly at once (before effervescence has ceased) and kept corked between doses, it makes the most agreeable liquid iron-mixture there is—patients often asking for "another bottle of that nice 'wine' tonic."

SYPHILITIC ULCERS

Ulcers of syphilitic origin may be well treated by local use of iodoform. After thoroughly cleaning, the ulcerated surface may be covered by powdered iodoform and then gauze applied. But as the iodoform is apt to cake, most genito-urinary surgeons prefer to use something like this:

Iodoform	1.5 (grs. 20)
Oil of eucalyptus	16.0 (drs. 4)

Apply on gauze and cover with oiled silk. When the patient must be on the street, subiodide of bismuth may be substituted for the iodoform, on account of the unpleasant odor of this drug; but it is not nearly so satisfactory as is iodoform, which more readily gives up its iodine.

IODINE FOR ENLARGED GLANDS

Enlarged lymphatic glands which do not seem inclined to break down into pus may sometimes be made to disappear by the local use of the official iodine ointment (unguentum iodi, U. S. P.). When ordered for children, who have a very delicate skin, it must be diluted one-half with lanolin. It should be applied with gentle friction twice daily. This mode of using iodine is preferable to painting with tincture of iodine for this trouble. But the treatment must be discontinued as soon as it is seen that pus is forming, and the glands excised under strictest aseptic precautions, with greatest care that the enveloping tissue (capsule) is not broken into.

ICHTHYOL FOR SPRAINS

To remove the swelling which follows a severe sprain, especially of the ankle, when the ambulatory instead of fixation-treatment is to be adopted, ichthyol may be ordered for frequent and deep massage. On account of its nasty smell phenol may be added, or oil of citronella. It should be combined with lanolin to get best results.

Ichthyol	8.0 (drs. 2)
Lanolin	32.0 (oz. 1)
Oil of citronella	2.0 (grs. 30)

Mix. Directions: Apply by deep massage three or four times a day.

HICCOUGH AFTER OPERATION

Occasionally a persistent hiccough occurs some hours after severe injury or serious operation and becomes quite distressing to the patient. Possibly the best thing to control it, after application to the throat of cloths wrung out of ice-water has failed, is "Hoffman's anodyne," the spiritus ætheris

compositus of the U. S. P. It is composed of ether, alcohol and heavy oil of wine—hence a stimulant of almost instant action, yet prolonged as well; the ether is taken up immediately, the alcohol somewhat later, and the oil of wine quite a time afterward. The dose is one to two teaspoonfuls every hour until relieved. Sometimes a capsule of camphor with musk arrests hiccough which has resisted all other medication; but genuine musk is very hard to obtain at present.

SOAP SUPPOSITORIES

When glycerin suppositories are not obtainable, a cheap and efficient substitute is soap. A piece about the size of a man's thumb is made smooth, is wetted and pushed as far up the rectum as a finger will carry it. Loose, easy bowel-movement soon results. It is particularly applicable to young children who fight at every attempt to give an enema.

FOR CHOLECYSTITIS

Bilein is a much-lauded preparation for inflammation of the gall-bladder and for gallstones not subjected to surgical treatment. It consists of the alkaline salts of the bile-acids; the active agents of the bile. The dose is from one to three centigrams, four times a day (1-8 to 1-2 grains). It is often given in combination with an equal amount each of calomel and podophyllin, making an active hepatic stimulant and so-called cholagog. When given alone it should be followed by a saline laxative.

CARBUNCLES

During the progress of a carbuncle it is advisable to administer a centigram (1-6 grain) of sulphide of calcium every hour during the height of the fever and discomfort; and about 25 cg. (1-2 grain) four times a day later on. It seems to prevent the formation of new foci as well as to reduce the amount of local inflammation, quickly liquefying the central mass and preventing the formation of healthy granulations. It is claimed that if given before suppuration begins the process is arrested, and a hard lump forms at the site of streptococcus infection—a lump which disappears in a few days without suppurating.

IODIDES FOR ANEURISM

The pain and throbbing of inoperable aneurisms may often be ameliorated by the internal use of iodide of potassium. Even though there may be no suspicion of syphilis as a cause, the iodide should be tried before resorting to morphine or other opiates. In doses of one to two grams (15 to 30 grains) three times a day, with enforced quietude and restricted diet, it affords perfect immunity from suffering; but it may have to be continued for many months, the slightest reduction from the dose of tolerance causing immediate return of the pain. It is presumed to act by depressing the heart, though it may have some direct effect upon the diseased vessel-walls (especially in cases due to syphilis). In some cases, undoubtedly luetic, it is necessary to increase the dose to five or six grams thrice daily. A few cures have been reported.

ACID DRINKS AFTER OPERATION

When there has been much loss of blood or when anesthesia has been prolonged there is always great thirst after operation—a thirst which becomes very distressing if fever follows, as it invariably does in infected wounds. The desire for water arises not so much from true thirst as from a harassing dryness of throat and mouth. Much of this may be relieved by frequent mopping of lips and tongue with a cloth wrung from ice-water. If the patient be given all the water desired the stomach will soon become overloaded and troublesome vomiting arise; if not, there will be produced loss of appetite and acute indigestion, and later flatulence and even diarrhea. If lemon-juice, lime-juice or dilute phosphoric acid be

added to the water drank a far less quantity will be required to satisfy; frequently after a small glass of sour lemonade the patient's irritability will disappear, the restlessness will subside, the pulse-rate will lower and sleep supervene.

FORMALDEHYDE IN GENITOURINARY SUPPURATION

Infections of the genitourinary tract attended by the formation of pus are greatly lessened in virulence by small quantities of formaldehyde, a drug which is excreted chiefly by the kidneys. Pyelitis, pyelonephrosis, cystitis, prostatitis and even gonorrheal urethritis speedily improve after its administration. A most excellent combination for each of these diseases is—

Formin	0.2	(gr. 3)
Arbutin	0.04	(gr. 1-2)
Ammonium benzoate	0.2	(gr. 3)

One such tablet dissolved in from four to eight ounces of water every three to six hours. From it formaldehyde is generated slowly, and gradually eliminated through the kidneys, thus exercising an antiseptic action from the very glomeruli of the kidney to the end of the tractus genitalis.

IODOFORM-WAX FILLING

When large amounts of bone are necessarily removed (for necrosis, tuberculosis, etc.) the cavity may be filled by

Iodoform powder	60.
Spermaceti	20.
Oil of sesame	20.

Mix in a mortar just out of a sterilizer and put into a sterile (boiled) jar. This is a fluid at 132° F. The cavity in the bone must be perfectly clean and dry, and every part of the cavity must be permeated by the mass; drainage usually is not necessary, but if thought advisable, can be made by the insertion of a few strands of plain catgut. While this filling is for temporary use only, being pushed out by the growth of new tissue, the wound sometimes heals by first intention and the filling is absorbed in time. Though a foreign substance, it is well borne by the tissues; pulse and temperature sometimes increase, but usually for only two or three days. Symptoms of iodoform poisoning are rare. This method gives its best results in cases of chronic circumscribed osteomyelitis, chronic tuberculous osteomyelitis and the acute form attended by necrosis.

CATHARTICS IN PROLAPSUS RECTI

After the rectum has been returned beyond the sphincter the question arises, "What is the best way to move the bowels?" for straining at stool is the cause of the prolapse and may induce its immediate return. Podophyllin in doses of one milligram (gr. 1-67) every hour, six times, will cause very gentle movements without straining. Two or three tablets should be given at bedtime for a week or more.

ERGOTIN FOR TYMPANITES

To reduce the distressing distension of the abdomen following intraperitoneal operations the hypodermic use of ergotin is advisable. If ergot is given by the mouth, it will almost invariably excite vomiting, which will increase the distension. So two drams of the fluid extract may be given by rectum and repeated in two hours; or one-tenth grain of ergotion may be injected into the buttock or thigh—not the arm, as abscesses sometimes follow its use.

PREVENTION OF ADHESIONS

In abdominal surgery one of the most important things is to leave the belly in such shape that adhesions will not form. To this end much time may profitably be spent (except in cases of emergency where immediate closure is imperative) in doing work to prevent any raw surface being left exposed; for, if it be, intestine or other structure is almost certain to adhere and cause future suffering—especially in ner-

vous, hysterical or neurasthenic persons. The best way is to cover thoroughly every denuded surface with peritoneum; but if this is impossible, the omentum is to be brought to the bare place and sutured over it, if possible, in such way that there is no traction on the omentum. In some cases, where neither can be done, it is good practice to rub the raw surface thoroughly with sterilized olive oil. Silver-foil has been suggested, but it cannot be employed satisfactorily and should not be tried (though it may be used in the brain). A 20 per cent solution of gelatin with 1 per cent formalin has also been recommended, but is worse than useless. Cargile membrane has also proven of little value. On the whole it may be said that there is no effectual way of preventing adhesions except carefully to cover every torn or cut surface with peritoneum or omentum. Even rough handling of intestines with gauze or towel will cause enough erosion of the serosa to cause adhesions; hence the necessity of dealing as gently as possible with the peritoneum everywhere.

GALLIC-ACID OINTMENT

Practicians of the last century were very fond of gallic acid, on account of its astringent properties. Now it is rarely used except in the form of the unguentum acidi gallici of the United States Pharmacopeia. This is prescribed for psoriasis and as an application to old sores and ulcers which are discharging too freely.

KEEPING PATIENTS ON THEIR BACKS

Most surgeons insist upon patients lying upon their backs for many days after a severe operation, patients who would strangle, choke, snort and become blue in the face if they were to sleep upon their backs in health. It is an unnecessary cruelty in most cases. If in an abdominal section the blood-vessels have been properly tied, the patient may usually be permitted to lie upon the side the second night; indeed, in appendicitis it is advisable that the patient lie upon the right side instead of the back; for if drainage has been a necessity, this position will facilitate drainage, and if not, the position permits the cecum to drop into its normal position most readily. In most other operations the position which is most comfortable to the patient is usually the best for ultimate results.

TONIC DURING CONVALESCENCE

The prejudice against pleasant medicines, such as tablets, granules, elixirs, etc., which is to be found in some communities must not be met by flat refusal to use the kind of medicines to which the people have been accustomed—a campaign of education is best, gradually supplanting the nasty by the nice. In every such locality will be found individuals who demand "bitters" to be taken during the convalescence from operations, etc. To such the following may be given to their entire satisfaction:

Dilute nitrohydrochloric acid	8.0
Tincture of nux vomica	4.0
Compound tincture of cardamom..	64.0
Compound tincture of gentian ...	164.0
Whisky	128.0

Direct: One tablespoonful before each meal. It certainly makes the patient eat.

PHENOL FOR BUBOES

When buboes are seen very early, before any great amount of redness of skin is present, the skin may be frozen with chloride of ethyl and ten drops of a solution of phenol injected to the middle of each enlarged gland; the solution being of this strength:

Phenol	0.5 (grs. 8)
Distilled water	32.0 (oz. 1)

The skin should be carefully scrubbed and washed with ether or alcohol before the needle is introduced, and the needle itself should lie in alcohol five minutes before using and then passed through an alcohol flame just before introduction into the gland; and the fingers should then not

touch the needle until the injection is made, since otherwise a staphylococcus infection may result, with extensive suppuration.

CHARCOAL POULTICE

Charcoal poultice, like all other poultices, has fallen into disuse on account of the nastiness, other and better agents being employed; but sometimes patients are found who *demand* poultices, and when there is an ugly sloughing (and especially a sloughing old wound or ulcer) the charcoal poultice may be ordered. It possesses the advantage of being a powerful deodorant, and sometimes it does seem to do more good at the beginning of treatment of such ulcers than the modern "antiseptic" applications. It should be made thus: Wood charcoal, pulverized, one-half ounce, divided in two parts; bread-crumbs, two ounces; linseed meal, one ounce and a half; boiling water, ten ounces. The bread-crumbs and linseed meal are macerated for ten minutes with heat to keep the mass just below boiling, and then half of the charcoal is stirred in and one-half ounce of liquid phenol added, care being taken that it be well mixed. The poultice is then spread on a cloth, the remaining half of the charcoal sprinkled on and the mass applied quickly to the sore and covered with a piece of oil-cloth or rubber-tissue.

GYNECOLOGICAL THERAPEUTICS

POTASSIUM PERMANGANATE FOR AMENORRHEA

Purely functional amenorrhea, i. e., failure of appearance of the menstrual flow without discoverable organic cause, is sometimes helped by the internal use of permanganate of potassium. It is best given in the form of a tablet containing one milligram (gr. 1-67) every 3 or 4 hours for three of four days before the proper time for appearance of the menses. A good dose of aloes should be ordered for each of the four nights.

BROMIDES AT THE MENOPAUSE

The menopause, if normal, should be attended by no disturbance whatever. But some women, by reason of the high nervous tension of modern life (notably in cities), have certain nervous symptoms sufficiently annoying to drive them to a doctor. They first complain of flushing of the face and palpitation of the heart; soon more or less sleeplessness follows, with want of concentration of the mind, nervousness, tendency to jump at slight noises, irritability of temper, fleeting pains, headache on the vertex, more or less dizziness—sometimes even typical "sick-headache"—all associated with extreme prostration and mental depression. Such patients should be carefully examined for organic disease. In most instances the trouble will be found to be of purely nervous origin. A few days' treatment each month with good doses of bromide of potassium will almost invariably afford perfect relief. The bromide should be begun two or three days before the usual time for appearance of the menses.

CYSTS OF THE URACHUS

In the differentiation of intraäbdominal growths a tumor in the midline between pubes and umbilicus must always be carefully examined to exclude a cyst of the urachus. If it has not been discharging at the navel it might easily be mistaken for an ovarian tumor, a fibroid of the uterus, a growth in the mesocolon, or a distended bladder. But almost always there has been some kind of a discharge from the umbilicus; urine if the urachus be still open into the bladder, a milky fluid if there be a true cyst

of the urachus. When there is a discharge present, it must be identified beyond question, for besides urine and cyst-contents there may be discharged (1) pus from an abscess in (a) the abdominal wall, (b) the Fallopian tube, (c) an appendical inflammation, (d) a fecal fistula or (e) some other source; (2) contents of a dermoid cyst or (3) secretion from a moist eczema of the umbilicus.

PREMENSTRUAL MENSES

Some women suffer intensely just before each menstrual period—not a true dysmenorrhea but a general nervous storm, of which the pelvic organs are but the storm-center, but without serious pathological conditions present. Such patients are helped greatly by a peculiar combination:

Helenin	0.005	(gr. 1-12)
Viburnin	0.005	(gr. 1-12)
Dioscorein	0.01	(gr. 1-6)
Gelsemin	0.0003	(gr. 1-250)
Avenin	0.01	(gr. 1-6)
Scutellarin	0.005	(gr. 1-12)

This is obtainable in the form of a tablet and gives better relief than opiates. One or two are given every 2 or 3 hours until the "ovarian colic" or "pelvic pain" or "uterine uneasiness" are relieved; then three times a day until the menses have passed.

CHLORAL IN LABOR

If there be no emphysema, bronchitis or serious heart-lesion, chloral may be given with great advantage to the parturient woman who is nervous and anxious. It does not interfere with uterine contractions nor does it in any way affect the child. It is best given in doses of one gram (15 grains) early in labor, even before dilatation of the cervix (if the patient be seen that early) and repeated every half hour until the patient sleeps well between pains. Three doses usually suffice to make labor easy and the patient at peace; but a fourth may be given if labor be prolonged or the patient suffers too much. Two doses very early in labor followed by one-hundredth of a grain of hyoscine and an eighth of morphine hypodermically, after the os is well dilated, gives a tranquil, almost painless, delivery.

CICUTINE FOR DYSMENORRHEA

Some cases of dysmenorrhea depend upon a spasmodic condition of the uterine muscle —so-called "nervous dysmenorrhea." These may be helped by the administration of hydrobromide of cicutine, the active alkaloid of spotted hemlock, generally named "coniine." One to three milligrams (gr. 1-67 to gr. 1-20) may be ordered every half hour until pain subsides; then one every 2 or 3 hours until the flow ceases.

CHLOASMA OF PREGNANCY

A much-used prescription for the "spots" of pregnancy is this:

Oxide of zinc	0.2	(grs. 3)
Ammoniate of mercury	0.08	(gr. 1)
Cacao butter	10.0	(drs. 2½)
Castor oil	10.0	(drs. 2½)
Essence of rose	1.0	(gtt. 15)

This is to be applied to the affected parts of the face night and morning.

GLYCERIN TAMPONS

In relieving pelvic peritonitis and inflammation of the cervix there is nothing quite so effective as glycerin. A tampon of absorbent wool (or cotton) is saturated with glycerin and passed up to the os (and in the pouch behind the os, in pelvic exudates) and left for some hours; with string attached so that the patient may, herself, remove it. Some gynecologists use 10 per cent ichthyol and 90 per cent glycerin for saturating the tampons, but it is doubtful if any better results are obtained than from plain glycerin. After removal of the tampon a warm douche should be taken. When there is a disagreeable odor from the vagina, 5 per cent of phenol may be added to the glycerin. These tampons are very useful also in inoperable cancer

of the cervix, used after a potassium permanganate douche of light wine-color.

VALUABLE VAGINAL ANTISEPTIC

A most excellent formula, to replace the high-priced and sometimes harmful proprietary preparations on the market, is the following:

Eucalyptol	2
Thymol	1
Menthol	1
Zinc sulphophenolate	4
Salicylic acid	1
Alum	20
Boric acid	71

This is a non-toxic antiseptic which will be found exceedingly useful in the treatment of vaginitis. It is obtainable in tablets as well as powder. A heaping teaspoonful to a pint of hot water makes a good douche-solution, to be injected very slowly, with the patient on her back on a bedpan or pad. One of the tablets may be introduced by the patient who pushes it up behind the cervix, leaving it to dissolve in the natural secretions of the vagina.

SENECIN FOR SEXUAL DEBILITY

If there is any drug which may properly be called a "sexual tonic" it is senecin, the active agent of senecio aureus, or squaw-root. The dose is one to two centigrams (gr. 1-6 to 1-3) three or four times a day. It is most highly recommended for women who complain chiefly of a sensation of weight and dragging in the pelvis, yet who have neither prolapse nor laceration of the pelvic floor as a cause.

ANEMIA OF LACTATION

For the anemia which sometimes accompanies prolonged nursing of a child and also for women who are weakened by rapid child-bearing or by menorrhagia phosphate of calcium may be ordered. It is of value, too, for women "run down" from prolonged nervous strain of city life or from too strenuous work as stenographers, proof-readers, etc., when leucorrhea, backache, nervousness and general lassitude are marked.

Phosphate of calcium	0.08	(gr. 1)
Phosphate of iron	0.08	(gr. 1)
Phosphide of zinc	0.002	(gr. 1-32)

One such pill or tablet is to be taken one hour after each meal.

INFLAMMATION OF BREASTS

Mastitis may yield to the local use of oleate of mercury if it be properly applied before suppuration arises. To the oleatum hydrargyri add a little morphine (the basic alkaloid morphina—not the sulphate, hydrochloride, etc., which are not soluble in oleic acid) and a little of the mixture is lightly rubbed over the affected area. The rubbing must be very gentle or severe irritation of the skin will follow; indeed, with a very delicate, tender skin it may be better to apply the ointment with a brush. Twice a day is as often as most skins will stand.

UTERINE TONICS

As a rule so-called "uterine tonics" are of little or no value. But some timid women who refuse examination, yet insist upon having some kind of medicine to relieve the sensation of dragging or bearing-down in the pelvis, must be given something more than the general tonics—iron, quinine, strychnine. Their bowels should be cleaned out and kept clean by saline laxatives followed by some laxative pill at bedtime; and then may be given:

Aletrin	0.04	(gr. 1-2)
Bryonin	0.0001	(gr. 1-500)
Caulophyllin	0.01	(gr. 1-6)
Macrotin	0.01	(gr. 1-6)
Helonin	0.01	(gr. 1-6)
Hyoscyamine	0.0001	(gr. 1-500)

This combination (known for years as "Buckley's Uterine Tonic," non-secret) may be obtained in tablet form; one to

be given every two to three hours until relieved of discomfort, then three times a day with the general tonic.

PRURITUS PUDENDI

Severe suffering may arise from pruritus vulvæ or pruritus pudendi, the itching sometimes being almost unbearable—an itching which scratching does not ameliorate. When the mucous membrane becomes red and excoriated, a lead lotion may give immediate and permanent relief, though not always. Equal parts of liquor plumbi acetatis and glycerin gives relief from temporary smarting. Lead and opium wash is also good, either in full strength or diluted; a weak solution may succeed after a strong one has failed. Careful search must always be made for a cause: hemorrhoids, seat-worms, urethral caruncle and acid urine being the most frequent. The lead applications are necessarily not curative as long as the cause remains active. In bad cases a large camelshair brush may be dipped in a solution of nitrate of silver (2 to 5 grains to the ounce of water) and pushed up the vagina to the os uteri and the entire vulva painted with the solution three times a day.

"WIND TUMORS" IN WOMEN

Gynecologists are frequently consulted by women who say they have "abdominal spasms" or "wind tumors of the stomach." Examination shows flatulence and an intermittent painful distension, generally more marked in some particular part of the belly, most frequently under the ribs of the left side; if the patient belches, there is temporary relief, but soon the distension recurs with greater pain than before; and each attack may continue for hours. In a majority of cases the trouble is a neuritis of an intercostal nerve or one of the nerves of the abdomen, the pain being aggravated by gaseous distension of the stomach (or colon). A few doses of the sulphophenolates (the new name for sulphocarbolates) will relieve, if followed by a good purge. Two drops of liquefied phenol after each meal will help prevent flatulence when the trouble is of stomachic origin.

FOR AFTER-PAINS

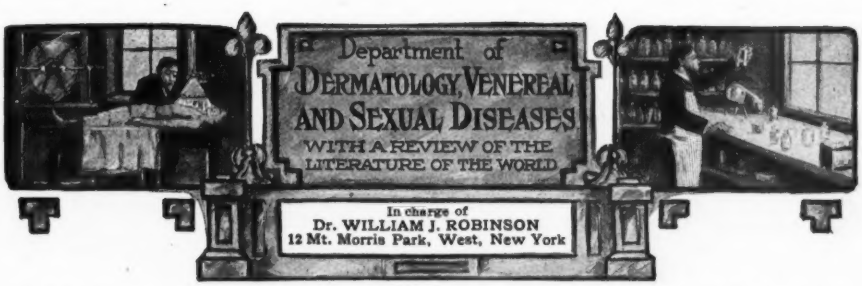
Delivery conducted under even one dose of the hyoscine-morphine-cactin anesthesia is singularly free from after-pains. During labor permitted to progress without anesthesia, if one centigram (one-sixth grain) of caulophyllin be given every hour, the after-pains will be reduced to the minimum.

MENORRHAGIA IN THE YOUNG

Certain young women, notably those inclined to hysteria, are troubled by too copious menstrual flow; also, by too frequent appearance of the monthlies. Before making an examination for organic disease, which is very rare in young women, i. e. of a character to produce menorrhagia, it is best to try bromide of sodium for two or three months. It should be taken for about one week before the expected appearance of the flow, if the period is fairly regular at twenty-eight days; but if the interval is only two or three weeks or the flow very irregular, the medicine must be taken without intermission. One gram (fifteen grains) three times a day suffices in the ordinary case.

INCONTINENCE OF URINE

Women occasionally complain that they pass their urine during sleep. To such patients santonin may be given in doses of one to two decigrams (1 1-2 to 3 grains) three times daily. It often checks the incontinence after everything else has been used; but equally often it does little or no good. Wetting of bed by little girls usually means masturbation—even very small children, mere babies, do it—in which cases bromides and salicin are advisable.



OVER-TREATMENT IN GONORRHEA

The danger of too strenuous treatment in this disease and some of the complications it is likely to cause, with a report of some illustrative cases

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WITH each additional year of practice I become more and more convinced of the enormous damage that gonorrheal patients suffer from too strenuous treatment. I am not referring to wrong treatment, but to too active, too frequent manipulations, too strong and too frequent injections, too forcible dilations, too violent massaging and stripping, etc. I could give dozens of illustrative cases in which "letting the patient alone" for a while produced better and more clearly evident results than months of treatment. Three cases, however, will suffice.

Case 1. Lawyer, age 26. First attack two and one-half years ago. For the first year he was treated rather off and on, by various general practicians. He was declared cured, but two months later he again noticed discharge. He is sure that it was no fresh attack, as he refrained from sexual intercourse. He went then to a specialist, who treated him for about four months, with the result that he was "practically" cured, but as the urine still showed shreds, he went to another specialist. This one treated him energetically, by prostatic massage, stripping of the vesicles, instillations, irrigations, sounds and dilators. The patient's condition promptly became worse. In spite of this the treatment was persisted in for nearly eight months. The patient's condition remained practically unchanged, improving one week and getting worse the next. Finally, the patient lost patience and thought he would change physicians, and the result was that one early morning I was honored by a call from him.

Examination showed the *goutte militaire*, and numerous small shreds in the urine. The most careful microscopic examination, however, failed to demonstrate the presence of gonococci. No stricture. Some dribbling of urine after urination (something we notice quite frequently in patients who have undergone numerous forcible dilations). Symptoms of slight cystitis. I at once gained the conviction that this patient had been overtreated. There seemed to be no justification for endourethral treatment. At any rate, as every kind of modern treatment had been used on this patient, I decided to give him the benefit of the doubt. The best thing for that urethra, I thought, was to leave it alone and give it a chance to get well. I ordered for the patient small doses of arbutin, urotropin and ammonium benzoate, and told him to take hot sitz-baths every

day or every other day. For the urethral canal I did absolutely nothing. The improvement was immediate and in three weeks the patient was practically well. I kept him under observation for six weeks more, but I could find no indication for urethral treatment; and at the end of that period I discharged him *cured*. I saw him three months later, and there was no return of any of the symptoms.

Case 2. Young man of 22, druggist. First attack about fourteen months ago. He consulted a general practician, who recommended different injections. The discharge would not stop. He became discouraged and decided to be his own doctor. He used practically every astringent official in the Pharmacopeia, and every non-official gonocide and astringent. From the old zinc sulphate plus lead acetate, through alum, copper sulphate, zinc chloride, silver nitrate, protargol, argyrol, ichthargan, ichthyol, colorless hydrastis, Kennedy's pinus canadensis, down to Big G.—all these, singly and in combination, he inflicted on his urethra. Two or three times the discharge had stopped entirely, but as soon as he would stop the injection the discharge would return. This would frighten him and he would return to his injection—to the same or some other combination, which he would copy from text-books or from his prescription file. I ordered him to stop all injections and not to mind the discharge. The discharge did return, but became gradually less and less in amount, and ceased entirely at the end of five weeks. This case left no doubt in my mind that a discharge may persist exclusively through the use of injections—especially of inappropriate strength, or when used with too much force. The patient has remained well for over three months, there being no trace of discharge, although he had returned to the worship of Bacchus and Venus.

Case 3. This case is chiefly remarkable for the number and frequency of prostatic massages and stripping of seminal vesicles which the patient had undergone. I believe, nay, I am sure, that if a perfectly healthy individual, with no affection of the genitourinary tract, had been subjected to so many prostatic massages and strippings, he would have developed an obstinate prostatitis and vesiculitis. The trouble with this patient when he came to consult me was really nothing more or less than a prostatourethrorrhea.

Hydrastine and arbutin internally and half a dozen applications of the cold rectal sound brought about a cure.

Ne quid nimis is a good maxim in medical treatment as well as in every other line of human activity.

CAUSTICS IN CUTANEOUS CANCERS

Caustics in the treatment of superficial cancers have been neglected by the regular profession. They have been exploited principally by the quacks. Their undoubted usefulness in selected cases cannot be denied, however, and the profession is beginning to realize their importance. In a paper read at the last meeting of the British Medical Association, Dr. A. R. Robinson had the following to say: (He limits his remarks to the use of zinc chloride, acid nitrate of mercury, caustic potash, and arsenic.)

When using arsenous acid, the paste should be applied until the macroscopical growth has been necrosed, and no longer. That may take place within six hours, and perhaps not in twelve, or it may take a still longer time, according to the action of the paste in different cases.

The strength of the paste to be used depends upon the form and upon the extent and location of the disease. The weaker the paste, the slower the injuring action, and the less the destruction of normal tissue in effecting a cure. The strength of the paste should vary in the different cases from equal parts each by weight of arsenous acid and gum acacia to two parts of the acid and one of gum acacia, with sufficient water to form a paste of rather firm consistence.

Never apply arsenic to a growth covered by normal epithelium. This epithelium must either be removed or greatly injured by cureting or by the application of an

injurious agent, such as caustic potash, thus making it a pathological tissue. If this is not done, proper action on the cancer tissue does not take place.

The same procedure is generally necessary with the thick, rolled-up edges of the larger flat epitheliomata in order to make all parts of the area to be acted upon of about equal vulnerability. This is very important, as it prepares the whole diseased area for equal action of the caustic..

When in doubt as to the completeness of the necrosis desired, continue the application of the paste until the proper action is believed to be positively obtained. Do not use the paste on cancer of the lower lip, ear, near the eye, mamilla, penis or scrotum, or when in any case the lymphatic structures are invaded. Arsenous acid is the best single agent for all the superficial forms of cancer when situated on the face, with the exceptions noted, as the results in these cases are quick and satisfactory from every standpoint. The case, however, must be a proper one for the treatment, and the technic of the operation be correct.

The x-ray only can compare favorably with this treatment as regards the results obtained in the superficial large or small epitheliomata, as far as the absence of deformity after cure is concerned; and often a combination of the two methods gives the best result in this respect.

If the growth is near the periosteum or in old persons, the caustic should be removed before complete necrosis of the macroscopical growth has occurred, otherwise the inflammatory process resulting might extend beyond the limits desired and cause in the one case necrosis of bone substance, in the other a too extensive destruction of normal tissue.

The subsequent treatment should consist in the application of a simple antiseptic ointment. Do not endeavor to make the part aseptic, but rather encourage granulation-tissue formation in sufficient amount to have the resulting scar-tissue leave but little deformity.

Zinc chloride produces a dry necrosis, has nó special selective action on the pathological tissue, causes too little inflammation, and therefore should not be used except as an agent in certain cases for removing a portion of the growth before using some other caustic or the x-ray. Its use alone as a curative agent is limited to very few cases.

Caustic potash is one of the most efficient agents in the treatment of cancer. It causes rapid liquefaction of the tissues and an intense inflammatory process with much serous transudation into a considerable area, with a consequent destructive action upon the pathological epithelial cells lying in the lymph spaces—and that is where they all lie, in the peripheral part of the growth. There is the direct action of the caustic, the intense inflammation and the flooding of the lymph spaces with inflammatory serum, all acting upon the pathological tissue. The technic consists in the regulation of this process in order to obtain the requisite degree of destruction of the pathological tissue with the least destruction of normal tissue.

Caustic potash can be used to destroy any small cancer, except the dry papillomatous forms. He has used it successfully many times on small growths near the eye, as well as on other parts of the face. Sometimes in small, deep tumors near the eye it is best used as in electrolysis for the removal of hairs, as caustic potash is formed at the needle connected with the negative pole. It should not be used on large growths, either superficial or deep-seated. The author concludes:

There is one point especially to which I wish to draw your attention, because I think it is of practical value. After treatment by any method and healing of the part, the application for a few minutes, of a 20- to 50-per-cent solution of caustic potash to the free surface of the area which was the seat of the disease will show whether there is any pathological epithelial tissue still present in the skin or not, by its selective action. I also use this method of procedure when in doubt as to the presence of a commencing epithelioma. This agent, therefore, has both diagnostic and therapeutical value.

For epithelioma of the upper and superficial forms on the lower lip, caustic potash is often the best agent to be employed.

Acid nitrate of mercury is extensively used by some physicians, but I employ it only to make small cancers near the eye more vulnerable for the x-rays.

THE X-RAYS IN CUTANEOUS CANCERS OVERRATED

We read so much about the wonderful power of the x-rays in numerous cutaneous affections, that it is well to read the other side, especially when the other side is such a careful man as Prof. A. R. Robinson. Here is what he says on the subject:

The x-ray is a decided addition to our armamentarium against cancer, but its virtues have been overexploited by some writers, perhaps for reasons best known to themselves. It is a grave error to maintain that with the x-rays alone all cases of cancer of the skin can be cured. This is not even true of cancers seen in a very early stage. It is also an error to hold that in all such cases where it could effect a cure it is the best agent to be employed. I believe its exclusive use should be limited to a very few cases out of all those that come under observation, such as those of rodent ulcer and some cases of superficial prickle-celled epitheliomata.

Some cases of rodent ulcer, especially those of the crateriform variety, in which, I think, there is a trophoneurotic condition, are incurable by any method at present known to the profession. In the majority of cases of superficial epitheliomata a combination of treatments, as by caustics, by the x-ray, and in some cases by the use of thyroid extract internally, gives the best results.

Hard, firm, elevated, epithelial margins must be made more vulnerable by injuring agents, such as caustics, before the x-ray is applied. In the deep nodular forms, in the keratoid epitheliomata, especially of the lips, and in cancer of the penis, I do not think the x-ray should be relied upon, for while it may have benefited or even cured some cases, it has in other cases hastened the growth of the cancer, and much time, valuable to the patient, has thus been lost. Unless a very satisfactory action is shown after a few treatments, the use of the x-ray should be discontinued and other methods should be employed. The application of the x-ray, twenty, forty, eighty, or even more times for the removal of a cancer that could have been removed equally well in a few minutes or a few hours, according to the condition of the case and the method employed, is a wrong to the patient.

As only a limited number of physicians are in a position to possess this "race suicide apparatus," it is well for the profession in general to know that there are but very few cases of cutaneous cancer that cannot be successfully treated without it. Every physician, however, who is engaged in the special treatment of cancer should possess an x-ray machine and know how to use it properly for any case that would be suitable for such treatment. As already stated, it is a valuable agent for nearly all superficial epitheliomata, especially for those situated near the eye. For such cases I employ it, but always in combination with the use of caustics, the latter to increase the vulnerability of the pathological tissue and make it more easily acted upon by the x-rays.

POINTS IN PROSTATIC HYPERTROPHY

Dr. H. Chetwood (*Therap. Gaz.*) correctly states that prostatic hypertrophy *per se* is not necessarily a cause for symptoms. But its obstruction of the bladder outlet produces a train of symptoms which, collectively, are known as prostatism. It is not so much the size of the prostate that determines the degree of symptoms, but the extent of its interference with the bladder function, plus or minus infection.

We sometimes find a prostate as large as a cricket ball, with but three ounces of retention (residual urine) and only very little cystitis, and, on the other hand, a prostate as small as a hazelnut encroach-

ing directly upon the orifice of the urethra, with complete retention, entailing catheter-life and chronic cystitis.

The diagnosis of prostatic hypertrophy is revealed:

1. By the existence of the train of *symptoms* at an age when prostatic hypertrophy is commonly found (after fifty years of age).

2. *By rectal examination.* It is not possible for prostatic hypertrophy to exist without some evidence of the enlargement being recognized per rectum.

3. *By urethral measurement.* The normal urethral length is about eight inches. Extensive prostatic hypertrophy produces elongation of the urethral distance.

4. *By vesical exploration.* (a) With the catheter, which reveals the degree of retention (residual urine). (b) With the Thompson searcher, which instrument detects the presence of stone as well as the existence of intravesical prostatic growth, and by palpating the enlargement recognizes the general outline of such enlargement as unilateral, bilateral, or median.

5. *By cystoscopic examination.* This latter means of diagnosis, which is more or less confined to those who are skilled in its employment, may be said to be required only in certain doubtful cases, as it is often difficult to perform on account of the prostatic growth, sometimes causes great irritation, and is often superfluous in reaching a correct diagnosis.

Treatment of Prostatic Hypertrophy

The most important consideration for the general practician, a diagnosis having been made, is the question of treatment. For it will often fall to his lot to determine whether to advise the patient to be reconciled to catheter-life or to take the risk of an operation.

1. *Conservative treatment.* This is another way of expressing the treatment of prostatic hypertrophy by the use of the catheter. There is little doubt that many individuals have passed years of comfort and peace under the habitual use of the catheter; and it would seem a pity to disturb such a condition by the suggestion of more serious and radical measures unless something should occur to render catheterism difficult, dangerous, or distasteful; difficult because of increasing obstruction and vesical irritability; dangerous because of recurring infection of the bladder or ascending infection of the kidney; distasteful because of the necessity of resorting indefinitely to mechanical means of emptying the bladder.

On account of any of these reasons operation may be advisable either as a surgical necessity or as a matter of choice on the part of the patient.

2. *When to operate.* Until recent years surgical interference in prostatic hypertrophy was regarded as an operation of so high a mortality that many surgeons were cautious to advise, and the patient was more reluctant to accept, so hazardous a remedy. But there are some cases in which the hazard of operation is minimized by the favorable condition of the patient as well as by the condition of the parts to be operated upon. There are other cases in which palliative measures fail—and fail they must in a certain proportion of cases, under which circumstances surgical interference is an actual necessity rather than a matter of expediency. There are some cases, finally, that come under the category of what is known as "bad risks," on account of damaged kidneys, poor resistance, and general lowered vitality due to extreme age, in which the risk of operation may be materially lessened by the adoption of a conservative technic on the part of the operator, namely, by first performing a preliminary bladder drainage, and later a radical removal of the prostate after the parts have been prepared by the preliminary drainage instituted.

Therefore, when to operate is a question that must be decided in connection with the peculiarities of each individual case, according to the existing conditions and the patient's state of mind regarding the indefinite reliance upon the constant use of the catheter. Generally speaking, it may be said that when palliative measures fail to relieve active symptoms, when the catheter is not well tolerated and the patient cannot be relied

upon for its proper use, operation is warranted, and delay should not be permitted when there is evidence of ascending kidney infection; for kidney implication is not a contraindication for operation, but is even an additional reason why one should be resorted to.

3. *Choice of operation.* It may not devolve upon the general practician to determine which is the best operative technic when operation is determined upon; yet in a general way he may be called upon to describe the different methods of operation usually employed, the relative danger involved, the duration of treatment, and the possibility of postoperative complications.

Conclusions

The author draws the following conclusions:

1. Conservative treatment (by catheter) has its value in a limited number of cases.

2. Palliative measures should not be persisted in when they fail after a reasonable period to produce and maintain an abatement of symptoms.

3. A first injection of the bladder is not alone sufficient reason for operation; but recurring infection of the bladder or ascending infection of the kidney is sufficient warrant for operative interference.

4. The best, most permanent, and most radical results are obtained by early operation.

5. The greater number of cases of prostatic hypertrophy can be reached through a perineal incision. Perineal prostatectomy, generally speaking, has a shorter postoperative convalescence than suprapubic prostatectomy.

6. Galvanocautery incision is an effectual method of removing the bladder obstruction in certain cases. It is safer and surer through a perineal wound.

7. Disagreeable postoperative complications occur in a small percentage of cases.

8. In a certain number of serious cases, "bad risks," the danger of operation may be minimized by a preliminary perineal drainage, followed by secondary removal of the enlarged gland.

SOLUBLE INJECTIONS IN SYPHILLIS

Dr. J. Ballagi (*N. Y. Med. Jour.*) enumerates the disadvantages of the internal administration of mercury, the disadvantages of inunctions, and states that the only scientific treatment is by intramuscular injections. He prefers the soluble salts, and of these he prefers the bichloride.

The advantages of the bichloride injections are: They can be used in every case where mercury is indicated, except in very young infants. Their effect is quick, reliable; the dosage is accurate; with due aseptic manipulation they never cause abscesses; when used in proper quantities and intervals they do not cause mercurial poisoning—at least, not more than any other mercurial medication. The doctor has the patient perfectly under control. He cannot get more or less mercury but just the desired quantity. He cannot refill the prescription or lend the copy to another friend. Their drawback is the pain. Some persons do not complain at all, others feel a dull pain two or three days after each injection. But the pain is never [we would not say *never*] so bad as to prevent the patient from attending to his business.

The following prescription is used:

Hydrargyri bichloridi.....grs. 40
Sodii chloridi.....grs. 40
Aquæ destillatæ .....drs. 12

Label: 5-per-cent bichloride solution for injections.

After washing the skin first with soap and water, then with alcohol, 15 minims is injected into the muscles of the buttock. The needle must be thrust in perpendicularly, as deep as a 1 1-2-inch needle will go, pushing out the contents while withdrawing the needle. No massage or dressing is necessary. When a few drops of blood are oozing out (which seldom occurs), the author puts on a bit of cotton for a few minutes. The needle and syringe are to be washed out with hot water before and after each injection, using a separate needle for each patient. One injection is to be given once a week, and in all, according to the severity of the symptoms, from six to ten

injections. Four more injections are again to be given after ten to twelve months, whether there are any symptoms or not.

The author begins with the injections as soon as the diagnosis of the primary sore is definitely made.

THE ABORTIVE TREATMENT OF GONORRHEA

Gonorrhea is such a long, tedious disease, is frequently accompanied by so many complications, leaves so many sequelæ, that attempts at abortive treatment are perfectly legitimate, and opinions of different specialists on the subject are always interesting.

Drs. J. William White and Edward Martin (Genito-Urinary Surgery and Venereal Diseases, 7th Edition) say that strong, irritating injections, particularly those of silver nitrate, are now seldom employed. Increased severity and longer duration of inflammation have been noted in cases thus treated, and tight strictures are much more frequently observed than when gonorrhea is treated by less heroic measures. There is reason to believe, however, that, employed in the right way and at the right time, the abortive treatment of gonorrhea is justifiable, since it is followed at times by prompt cure, and if it fails, it does not seriously aggravate the original disease. Two methods of treatment may be adopted, with the idea of aborting the disease: (1) Injections of strong solutions of organic silver salts; (2) copious flushing with weak antiseptic solutions.

It has been shown experimentally that silver salts act as powerful germicides upon the gonococcus. Both the gonococcus and the silver salt produce the same effect upon the urethral mucous membrane —that is, they cause a desquamation of the epithelium and an active inflammation of the deeper structures. The silver salts, however, act very rapidly—within a few hours; the gonococcus requires several days to produce its full irritant effect. If, then, before the gonococcus has time to penetrate more deeply than the superficial layers of the epithelium an injection of silver is employed, it seems fairly reasonable to hope that it may not merely destroy the microbes, but may also cause them to be thrown out from the urethra by occasioning almost immediately an active inflammatory discharge, which, since it is solely due to a chemical irritation, may be expected to subside entirely within a few days. If, however, the gonococcus has had time to penetrate deeply, further irritation cannot accomplish its extrusion, but will simply diminish tissue resistance and add to the pabulum of the invading microbe, thereby increasing its multiplying powers.

It is, therefore, clear that the abortive treatment should not be attempted except in the very earliest period of a gonorrhea—that is, when the tickling of the meatus, the drop of clear or slightly cloudy discharge (made up of mucous and epithelium) and the extracellular position of the gonococci denote that the inflammatory process has not extended deeply. A red or injected meatus with swollen, everted lips, a turgid glans, marked ardor urinæ, and particularly free purulent secretion, constitute absolute contraindications to this treatment, even if the case is seen early in its course. The injection should be made of 5 grains of protargol to the ounce of distilled water. This is not strong enough to produce an inflammation of sufficient depth and intensity to be followed by subsequent cicatricial contraction. The patient first urinates, then has 10 drops of a 4-per-cent solution of eucaine injected into the urethra. Into the meatus, the lips of which are held open, several drops of the protargol solution are allowed to fall. Then the nozzle of the syringe is introduced and about 1 dram of the solution is injected and is held in for three minutes by withdrawing the syringe and compressing the meatus.

This injection is repeated every two hours; each time the ounce-bottle becomes half empty, it is filled to the top with distilled water. At the end of the first day the dilution becomes 1 : 200, at the end of

the second day 1 : 800, and at the end of the third day 1 : 3,200. The discharge diminishes and becomes mucoid, the gonococci disappear, and, if the treatment prove successful, there may be complete recovery in seven days. Even though the gonococci disappear, a slight discharge often persists.

Usually when patients appear for treatment, the gonococci have penetrated to a depth beyond the reach of the silver solution. Even when the case seems suited to this treatment, prognosis as to prompt cure must be guarded. There need be, however, no fear lest such treatment should directly cause stricture. As a rule, even when the injections fail to eliminate the gonococci and check the discharge, they do not after the first day aggravate the inflammatory phenomena, increase the liability to posterior complications, or prolong the treatment.

INNOCENT SYPHILIS

The following case, reported by Dr. A. B. Thrasher of Cincinnati, is one of the thousands of cases with which specialists have to deal (*Lancet-Clinic*). A Mrs. B., aged 40, was brought to him by her family physician, who was also a cousin of her husband. She had an obstinate sore throat which the doctor had thought was a follicular tonsillitis, but as she was making no headway, he sought a consultation. The right tonsil was slightly enlarged and hard to the touch. The doctor said it had been ulcerated, but the ulcer had disappeared. There were some mucous patches over the velum. There was considerable swelling of the anterior cervical glands, noticeably worse on the right side. There was some eruption over the palms, and she said she had a slight eruption over her body. The husband of the patient was a traveling salesman and had had a sore mouth and some ulcers on his lips when home a short time before, and it was from this source that they thought the contagion had been conveyed to the mouth of the patient. The reputation of the woman was, and is, of the very best, and on that account the doctor had no thought of syphilis in connection with her illness.

Such cases of innocently acquired syphilis are unfortunately only too common.

THE TREATMENT OF GONORRHEAL URETHRITIS WITH PROTARGOL

The remedy which has given me the most satisfactory results for many years, and which now seems to be generally recognized as the most valuable, is protargol. If judiciously used, it promptly destroys the gonococci where they can be reached by this specific; it quickly allays inflammation, and surely prevents complications.

The strength of the solution, the frequency of the injection, and the length of time it is to be retained, depend on the stage of the disease. Generally speaking, I would say that in the acute stage, with much inflammation, the solution must be very dilute; it should be injected at short intervals and retained but a minute. With the acute symptoms subsiding, the strength may be increased, the frequency of the injection reduced, and the solution retained longer. As a routine treatment for this class of cases I would recommend the following procedure:

The patient should urinate before each injection, so as to remove mechanically the secretion from the urethral wall. He should then inject a 1-8 per cent solution of protargol and retain it for one minute, repeating the treatment every two hours during the day, and twice during the night. The latter point is of the utmost importance for a speedy and safe cure, and many complications and chronic cases are due to the neglect of this rule, which I have tried to impress on the practitioners for many years.

After three days a 1-4 per cent solution should be injected every three hours during the day and once during the night. At the end of the first week the strength of the solution may be increased to 1-2 per cent, to be injected every four hours and retained five minutes, and the night injections discontinued. At the beginning of the third week the same solution is in-

jected three times a day and retained ten minutes at a time. At the beginning of the fourth week, when the secretion will be found to contain mostly epithelial cells, none, or but a few, leucocytes, and no gonococci, an astringent and mild antiseptic will be substituted for the morning and noon injection of protargol, but the latter is still to be used before retiring. In the following two weeks only astringents may be injected, if repeated examinations have shown the permanent absence of gonococci.

Fresh solutions of protargol, not older than three to four days, should be used, and they should, therefore, not be made from stock solutions, and must be kept in stained glass bottles. They should be prepared slowly, by spreading the powder on the surface of cold water, and not by mixing, stirring, heating, or by the addition of solvents. These small details seem to be overlooked quite frequently, but are important to obtain good results. The female urethra is not suitable for injections, nor is it possible to retain fluids therein for any length of time. Instead of these I have always successfully employed urethral bougies, one and one-half inches long, made of protargol and gelatin. They are inserted into the urethra once, and later on, twice a day, and there retained for ten to fifteen minutes by a pledget of gauze or cotton slightly pressed against the urethral orifice. By squaring the bougie for an eighth of an inch upward from the orifice, oftentimes no artificial retention at all, in the recumbent position, is necessary. After the gonococcus has disappeared from the discharge, astringent, medicated bougies are inserted on alternating days with protargol bougies for about two weeks, and, finally, the astringent alone for one week. Precautionary hot vaginal douches with a quart of 1 in 3,000 protargol solution, or 1 in 10,000 nitrate of silver, twice and later once a day, are used. The vestibulum, the area about the vulvovaginal glands, the urethra, and the clitoris should also be cared for in the same way. Occasionally, but rarely, it will be necessary to employ protargol solutions as strong as 1 per cent; they may not be used more than once a day, and if found inadequate, a 1 in 2,000 nitrate of silver solution injected twice a day may be substituted with satisfactory results.

Acute posterior urethritis: Daily injections with a dram of a 1 per cent to 2 per cent protargol solution will answer the purpose. They are given like bladder instillations, with the difference that the tip of the catheter or of the instillation bougie is placed in the vesical neck and the solution is deposited, drop by drop, over the whole inflamed area, while the catheter is being slowly withdrawn to the external sphincter.—Alfred C. Croftan in "Clinical Therapeutics."

FOLIA UROLOGICA

With Professor James Israel of Berlin as editor-in-chief, Professor A. Kollmann of Leipzig, Dr. G. Kulisch of Halle and Dr. W. Tamms of Leipzig as associate editors and the other principal urologists of Europe as collaborators, these new international archives are announced by the house of W. Klinkhardt, Leipzig. Exhaustive original articles with colored plates and illustrations will be the principal feature of *Folia Urologica*. Contributions will be published in the four languages that are officially used in congresses, and each paper will be summarized in the three other languages. The new publication will contain a department entitled "Events in Urology," in which the regular collaborators will periodically report on the advances in this specialty, after having tested them critically in their respective services and laboratories. Finally, *Folia Urologica* is to serve as a means of collecting the annual reports on urological work in hospitals, clinics, etc., throughout the world. With a view to publishing contributions as quickly as possible, the issues of *Folia Urologica* will appear as often as required. Contributions from North, Central and South American authors may be sent to either of the American editorial representatives, Wil-

liam N. Wishard, M. D., Newton-Claypool Building, Indianapolis, Ind., or Ferd. C. Valentine, 171 West 71st Street, New York.

A CASE OF GONORRHEA OF THE MOUTH

Buccal gonorrhea is of rather rare occurrence (though it is becoming rather more frequent of late) and the following case, reported by Dr. S. M. Hyman (*N. Y. Med. Journal*), is of interest:

A girl, eighteen years of age, of French-Irish descent, came to him complaining of terrible pain and burning in the mouth and cheeks. She admitted practising buccal intercourse. Subjective symptoms were as follows: Severe pain, burning and a feeling of heat and rawness of the mouth. Patient avoids meals, as she fears the intense pain caused by swallowing either liquid or solid food, especially the latter, which causes some bleeding. There is increased expectoration of a foul odor with traces of blood. The tongue is swollen and painful and there is constant nausea. On objective examination the uvula, soft palate and cheeks were found covered with a milky membrane with some bleeding spots in it. The membrane was non-adherent, showing on removal a red, inflamed surface beneath. Tongue red and painful, patient being unable to protrude it completely. Gums spongy, retracted from the teeth, bleeding freely on being touched. Buccal temperature 99.7°F., the axillary temperature being only 98.2°F. Genital gonorrhea absent. On microscopical examination the membrane was seen to consist of mucus, epithelial and pus cells, within and around which staphylococci and diplococci could be seen, the latter having all the staining and morphological characteristics of the gonococcus of Neisser.

Treatment consisted in 10 grains of calomel at bed-time and local applications of silver nitrate, commencing with 1-250 and increasing to 1-50. The symptoms at once began to improve and the exudation disappeared on the fifth day. Gargles of boric acid and alum were also used. On the tenth day the patient was discharged cured.

PRACTICAL NOTES

Europhen-aristol-petrolatum

I have recently had some very good results in chronic prostatitis and prostatorrhea with the following well-known solution, consisting of

Europhen	grs. 20
Aristol	grs. 20
Liquid petrolatum (highest obtainable purity)	oz. 1

Of course, the most painstaking scrupulousness should be observed, and one should be sure that the syringe is sterile.

The Primæ Viæ in Gonorrhea

All cases of gonorrhea get along better if the lower intestine is kept clean. We have been able to convince ourselves hundreds of times that an unclean, constipated bowel has a deleterious effect on the course of a gonorrhea. Ardor urinæ is heightened, the discharge is increased, chordee is initiated or made worse. Therefore be sure to keep the bowels clean. Use a saline laxative, an occasional but large dose of the sulphocarbolates or of guaiacol carbonate, and also an occasional enema.

Aphrodisiac Remedies

It is foolish to try to whip up a normally failing sexual appetite. It is pitiful to see men of sixty, sixty-five and over, asking for aphrodisiacs and other means for stimulating the sexual appetite. Impotence in young men and middle-aged, however, is a perfectly legitimate field for treatment, no matter what its cause may be. Local treatment will always play the most important role in the handling of those cases; but we have good adjuvants in some internal remedies. Among them the most important are: zinc phosphide, zinc valerianate, the glycerophosphates, the formates, strychnine (for temporary use only), lecithin and nuclein.

GLEANINGS *from* FOREIGN FIELDS

TRANSLATED BY E. M. EPSTEIN, M.D.

ANALGESIA IN PARTURITION

Some of the old and new methods of relieving the pains of childbirth, with special reference to the use of scopolamine-morphine or hyoscine-morphine combinations

TO alleviate and shorten the pains of child-birth was the endeavor of all times and nations. Ploss-Bartels describes *in extenso* the multifarious means, supernatural and natural, which have been resorted to, to this end, in ancient and modern times.

Mystic means and the invocation of a metaphysical power play a great part in this respect among undeveloped peoples. That such ceremonial customs and sympathetic practices exercise an influence on the psychic side of female patients of a low mental state, is certainly not to be denied. Surprising, however, it is, that such practice should have been retained and fostered among the highly cultivated or over-cultivated peoples of the twentieth century, under the covering mantle of suggestion and also as an effective power of a Christian society of knowledge.

The First Narcotics for the Parturient

Along with the mystical means of antiquity the Greeks and Romans made use of external and internal means in the form of potions and ointments which had in part a narcotic influence, which is more plainly discerned in the ancient Egyptians, who, in difficult parturitions, inserted a piece of opium into the genital parts of the parturient. The Arabians fumigated the parturient woman with certain vapors, and the Hindoos made them inhale coal vapors. All these show that the next step to a general narcosis was but a short one.

And so in time we had in use chloroform, the narcotics morphine, cocaine and chloral hydrate and nitrous oxide; but none of them has given satisfaction. Although the use of chloroform has to be acknowledged as the greatest progress in obstetrics, since it allows us to perform the most painful operations with the greatest care and tenderest regard, still it is not an analgesic because in the prolonged use of it and its quantity the damage to mother and child is unavoidable. Spinal anesthesia, which followed, has at times disagreeable results, and despite all improvements made has, nevertheless, to be limited to certain select cases.

Advantages of the new Anesthetic

Of farther-reaching application seems to be the scopolamine-morphine narcosis which Steinbuechel introduced in obstetrical practice in 1901. The effect of that combination was already known, and the remedy went through several changes, owing to the thorough researches on it by Schneiderlin and Korff, and it was administered in psychiatric and surgical cases. The good results obtained from the remedy soon

encouraged its use in obstetrics, and we have now quite a series of statistics at our command. We have reports from the clinics at Jena, Giessen, Budapest and Klagenfurt. Gauss, in Freiburg, used it in 725 cases; Lehmann of Karlsruhe reports 70 cases, while Kroemer, Hocheisen and Bardeleben made extensive trials of it.

I tried the scopolamine-morphine narcosis in a series of 45 cases, comprising weakly women and even such as had disturbances of kidneys and heart. The remedy was given hypodermically after the regular labor-pains began. In my first fourteen cases I administered 0.0045 of scopolamine and 0.01 of morphine. If the result was not complete, I gave another injection of scopolamine of 0.0003 in an hour and a half to two hours.

In all my subsequent cases, and this is now my rule, I gave scopolamine 0.0003 and morphine 0.01 as a first injection. If the pains did not disappear after one and one-half hours then another injection was given. A third injection should not be given before two hours. I used scopolamine, Merck, exclusively. The solutions are made separately, sterilized, and then mixed together. The solutions should be kept in the dark and there is no need of any antiseptic addition. The solution will keep a year.

An Experience with Forty-five Cases

My forty-five cases comprised 12 primiparæ and 33 multiparæ. In four cases operations were needed. Three deliveries were made with forceps on account of exhaustion. The cervix was dilated in one case, followed by version according to Bosse's method.

The effect of the remedy took place in about ten minutes after the first injection, which consisted in a decided feeling of tiredness, a diminution of the pains of labor, the patients falling into a state of light sleep [what the Germans call "*Daemmerschlaf*," which may be rendered "dawn-like sleep," i. e., the first dawning of light or consciousness] out of which they awake only during the labor-pains. In some cases I noticed a strong excitement, the patients throwing themselves hither and thither. The general sense of pain was tested with the needle and found much reduced everywhere; so, too, was the sense of heat and cold retarded and indistinct, and the pupils were dilated in some cases, the reaction for which in every case tried was slowed. Some of the women complained of throat dryness and thirst. Respiration and heart-action I did not find deviating from the normal.

The Remarkable Loss of Pain-Memory

In the stage of expulsive labors the patient forgets the effort of abdominal pressure and has to be reminded of it. The effect of the remedy on the psychic state is a pronounced diminution or entire absence of the pains of labor, a slowness and obscurity of the sensorium, without loss of consciousness. Memory seems to be gone and complete amnesia is certainly a happy addition to the other effects. Many women do not know that they have begotten a child, and are astonished at the fact, and cannot remind themselves of any labor-pains. Primiparæ are not so much astonished as multiparæ, who remember the pains of past parturitions and who compare them with the present one in which there were none.

What was the effect on the child? In 39 there was perfect vigor of life; in 6 I noticed asphyxia and depression of respiration, and in these there was for some days a sleepiness and slowness in taking food. One infant of these six must be excepted, as it had an open *foramen ovale*. These phenomena in the infants must be ascribed to the morphine, for we know that all soluble substances pass over through the placenta to the child, and morphine is excreted from the body very slowly, while that of scopolamine goes out rapidly. Morphine must have a very marked influence upon the fine organism of the newly born. The excretory functions of the newly born are slower, and what the various mucous membranes excrete may be absorbed again. We know well, too, the mighty effect of

morphine on the infants whose mothers are addicted to the drug.

Physiological Action of the Two Alkaloids

Of the physiological effect of the two alkaloids we have as yet no clear ideas despite the many experiments with them. In toxicology they are regarded as antagonistic, but we cannot see this so easily by simple clinical observation.

Morphine in one to three centigrams (gr. 1-6 to 1-2) is easily borne even by a weak heart, but it has a decidedly laming effect on the respiratory center; it depresses its activity, makes it slow and shallow. Scopolamine does not appreciably influence the respiration, and Vogel speaks of a slight acceleration of it, but it increases pulse frequency and blood pressure. Our observations, hitherto, lead us to take the two alkaloids as not altogether antagonistic, and of a mathematical dissolution of both components there can be no idea.

I am under the impression that the scopolamine-morphine narcosis has no necessary influence upon the activity of the womb and the expulsive efforts. In 10 per cent of my cases I observed weakness of labor pains, but I ascribed it to other factors. A third of my cases ended very rapidly, and I must acknowledge that in consequence of the absence of pain the application of the abdominal pressure during the expulsive stage was far more free. Hemorrhage after the expulsion of the placenta I noticed in two cases, but it was easily checked with ordinary means, and in all the rest of the cases the contraction of the uterus was good. Any evil influence on the postpartum period or upon nursing the infant I could not see.

Great Advantages—Some Dangers

Looking at the sum total of my forty-five cases of scopolamine-morphine analgesia I must say that it is a method of quieting pains or preventing them entirely during parturition which was never attained before. Of course, it is to be kept in mind that both alkaloids are great poisons, that the damaging influence of morphine on the respiration, especially that of the child, is very evident; furthermore, that scopolamine acts far more violently than atropine, which the action of the pupils evidently shows. It is only the happy mutual counteraction of the two remedies that makes us obtain such an analgesia as we could not have from either of the two alkaloids alone, because of the danger of their great individual toxicity which would not allow us to dare with them. Future experiences may teach us how far we may diminish the dose of the one and increase that of the other. Or chemistry may give us some modified preparation free from unpleasant side-effects, and so reach the minimum toxicity and ideal effect.

As to the employment of the combination in other cases, it has to be stated that it is contraindicated in all affections of organic and metabolic diseases, or febrile ailments, in primary weak labor-pains, and in all affections and states in which the half-sleep of scopolamine-morphine may obscure the diagnosis and true character of the trouble, e. g., of acute anemia. I have noticed that the people near the parturient woman have the impression from the flushed face and groaning and jactitations that she is suffering greatly, but the patient cannot remember anything of the pain afterward.

With a knowledge of its phenomena, and by observing certain rules, scopolamine-morphine analgesia may be regarded as an invaluable progress in obstetrics; no injury to the womb; no deleterious influence on the act of parturition, or any evil consequences to the woman has hitherto been observed. One thing must be remembered, that under the influence of this analgesia the asphyxia of the new-born is more frequent than in natural birth, and the physician must watch the case scrupulously and hasten the delivery when needed. The disadvantages growing out of this are calculated to dampen somewhat the enthusiasm for this procedure of "parturition without pains" both among physicians and laity. Harmless as this combined remedy

is for the parturient mother, the maxim of *primum non nocere* demands the full right for the child, too.—*New-Yorker Mediz. Monatsschrift*, December, 1906.

SCOPOLAMINE-MORPHINE NARCOSIS

Korff (*Berl. Klin. Woch.*, December 17, 1906) again defends the method of inducing surgical narcosis by subcutaneous injections of scopolamine and morphine which Schneiderlin and he first advocated. Failure and even accidents led to several authors writing against the method, and even Schneiderlin appears to have been disappointed to a certain extent. Korff, however, finds that the failures and accidents are explainable, and claims that his results are excellent as long as the dosage is strongly adhered to. He has found that 1 mg. of scopolamine and 2 1-2 cg. of morphine represent the best doses for the purpose. Larger doses are certainly dangerous, and are responsible for many of the unfavorable experiences which others have had. However, a large number of eminent surgeons and obstetricians have spoken highly in favor of the method during recent times. Korff's *modus operandi* is to give the patient a large cup of coffee to drink one hour before the first injection. He then injects one-third of the dose two and one-half hours before the time for operating, the second third one and one-half hours before, and the last third one-half hour before. Old persons sometimes are narcotized with two-thirds of the full dose. He has given the injections to over four hundred patients, and has not met with a single bad result. The patient is kept in a darkened room, and all sensory impressions are removed. As a rule, he falls to sleep quite quickly, and the anesthesia gradually increases. The pupils are dilated or contracted, according to the susceptibility to morphine or scopolamine, the reflexes diminish, and the pulse and respiration sometimes become slower and sometimes more rapid. At times there is a marked reaction to the first incision, but if one waits for a minute or two the patient falls asleep again, and one can proceed uninterrupted. In this way forty out of his fifty goiter operations were performed without chloroform. When the action is not sufficient to continue the operation without a general anesthetic, it is found that much smaller quantities of the latter are required than would be used without the injections. The chief advantages of the method are that there is not distressing vomiting during and after the operation, that there is psychical tranquillity and freedom from pain after the operation, and no excitement immediately before. He states that he finds a preparation which has recently been introduced for the purpose of 12 mg. of scopolamine and 3 cg. of morphine sealed up in a glass tube, particularly handy and reliable, and recommends this means of keeping the drugs for future use. He considers that his method is able to replace the ordinary general inhalation anesthesia.—*British Medical Journal.*

INUNCTION WITH SOFT SOAP IN TUBERCULOSIS

Wolff, Czerny, Busch, Hausmann, Senator, and Hoffa successfully used the inunction of the entire body of tubercular patients with soft white potash soap three times a week during half an hour, and washed off in a tepid bath, or with douche. The general hygienic and symptomatic remedies were, of course, not neglected at the same time. Under this treatment the appetite increased, general well-being improved, and recession of local phenomena, weakness, nightsweats, and chest-pains abated rapidly, cough and expectoration more slowly so. Some see the cause for the improvement, besides in the absorption of the effective ingredients of the soap, mainly in the stimulation of the skin, and the derivative action of it. The massage incidentally also contributes its good effects here. In some cases of tuberculosis the hyperemia caused by the procedure must also be taken into account. Ill effects were never observed from this treatment. Hoefler introduced before this time the rubbing in of hard soda soap in syphilitic and chronic tubercular patients.—(*Pharmac. C.-H.*, No. 17, p. 344, 1906.)

THAT NEW ANESTHETIC

The truth about the Hyoscine, Morphine and Cactin Compound, "H-M-C," the new hypodermic anesthetic. Some pregnant facts that must be taken note of, and a multitude of testimonies

I ANNOUNCED, several months since, that, in an early issue, I would give you the facts that now follow, a resumé of this most important subject, one which is today in the minds and mouths of more of America's medical men than is any other, no matter what it may be, and in giving these facts I do so, not as a "know-it-all" nor yet as an ignoramus, as some would have you think, but as a man of experience, believing what I believe, knowing what I know, and with the courage (call it egotism if you will) to stand for what I believe to be right, regardless of the forces of calumny and causeful vituperation that may oppose me, standing and speaking for the right in this and things personal—as I always have stood and ever shall stand for the right of choice for the medical profession—that the doctor is the rightful judge of drug-effect and a free-will agent in what he deems best to do; and as I deny the right of any man or any class of men to handicap, bulldoze or restrain his honest, able endeavor (even the right to call him an ignorant fool) so I deny the right of anyone (so-called "authority" or otherwise) to judge my words and acts unless he can demonstrate that they have incontrovertible grounds for what they say.

Judgment based on a fair consideration of a subject is one thing, while that based on prejudice in the individual or on acceptance of the prejudiced claims or expressed ignorance of others, is another. Careful, square, manly consideration of this important subject is what I ask and what I expect from those who read these lines.

When the subject of scopolamine-morphine anesthesia, by hypodermic injection, appeared upon our horizon a year or two ago, the idea having been imported by American devotees of the great foreign clinics as well as paragraphically by abstractions of foreign literature, I set about, through our translators and all other possible sources, to get all the information possible. Following the subject carefully, noting both brilliant successes as well as dismal failures, to say nothing of all too frequent deaths, and all under the apparently excellent technic of our careful, painstaking, scientific German brethren and the similar experience of just as good men on this side, and having, as I believed, hit upon both the essential cause of failure as well as the secret of success, I published in February, 1906, a paper in *The International Journal of Surgery*. While this paper is both imperfect and incomplete, our recent experience evidences that it was on the right track as giving the best and fairest and most practical resumé of the subject that had been published up to that time.

In that paper I distinctly called attention to the fact that scopolamine, as offered on the market, was not a reliable product, say-

ing that "Shoemaker calls attention to the impurity of commercial scopolamine, in which he finds a varying proportion of atroscine, whose effects are believed to vary from those of scopolamine. The latter may—but probably does not—vary, as derived from scopolia, hyoscyamus, duboisia, stramonium or belladonna, from all of which it may be obtained." This impurity, due to the fact therein stated—"scopolamine is a mixed alkaloid"—was suggested as the probable cause of the fatalities. A natural corallory to this idea was that *pure* hyoscine is a safe and reliable product. This I commenced to investigate. The fatalities from scopolamine-morphine were not ignored. Indeed, I was one of the first to call attention to them, as shown by the following quotation from my paper, already referred to:

The Medical World speaks of 14 deaths as occurring in 1,500 cases of anesthesia by this method. Gurlt found in over 330,000 cases of anesthesia that the mortality from chloroform was 1 in 2,075; ether, 1 in 5,112; the two mixed, 1 in 7,613; A. C. E., 1 in 3,370; ethyl bromide, 1 in 5,396.

Such statistics are misleading for two reasons: Many surgeons whose patients die of pulmonary edema or of nephritis are apt to neglect attributing these deaths to the ether. When a new anesthetic is introduced, men try it in cases where the ordinary anesthetics are considered too dangerous. Levis thus announced that ethyl bromide could be employed with safety in heart disease until a patient died on his operating table—when the profession discarded this anesthetic, disregarding the fact that such a case could not have taken any anesthetic with safety. Wood's bias in favor of ether is shown by his deductions from the above figures that "the ratio of deaths from chloroform is about four times greater than that from ether."

In inducing anesthesia by the method under consideration, the patient may be given a hypodermic injection of 1-4 gr. morphine and 1-100 gr. hyoscine hydrobromate or scopolamine. This is the dose for an adult of average strength who has been fully ascertained to be free from disease of the kidneys, the bowels and stomach being empty. If within an hour there is no evident effect from either drug—no flushing of the face or delirium, which sometimes occurs when the hyoscine employed consists preponderatingly of atropine—the dose may be repeated. Usually the anesthesia is not complete, but a little chloroform is required—generally the merest whiff, possibly half a dram. Satisfaction is more likely to ensue if the physician takes pains to have his agents of chemical purity.

What has been said above is so self-evidently true that these statements would seem to be superfluous, were it not that we hear on all sides, from men who certainly ought to know better, expressions that indicate the absence in their minds of any special distinction between atropine, hyoscyamine and hyoscine.

In regard to the method itself, we must warn our readers against too implicit faith in it before the later returns come in.

Our interest in the matter did not rest here. Not believing in the *actual* identity of these similar alkaloids, and *knowing* from our practical experience that the chemical identity, so satisfactory to the theorist, was not borne out in application, in conjunction with Dr. Emory Lanphear of St. Louis I set out to get to the bottom and we soon struck with a sharp thud—pure hyoscine from hyoscyamus, not from scopolia and not from anywhere else.

I am perfectly well aware of the claimed identity of scopolamine and hyoscine. I know that unfortunately they are mixed in nomenclature among the manufacturers, this the result of accepting as authority more of chemical theory than practical therapeutic fact, which latter, however, is the part that should and does interest the doctor, for on the correctness and accuracy of his tools his very professional life depends.

Much has been published of late on this point, the greater proportion of which has been directed straight at me personally and my position, that the doctor in the field should be the judge; negativing this and Barnum-like, with their "the doctor be damned," a studied effort is being made to choke him and to choke back all practical fact by jamming the husks of chemical identity down his throat.

One of the fairest resumés of this subject and one of the ablest, because it comes from one of the fairest, ablest men that ever breathed, is that of Professor John Uri Lloyd, who, noting the evident intent of theoretical authority to blind the doctor to practical fact (presumably in the interests of those who find it more profitable to have this error perpetuated) came promptly forward with the following:

Scopolamine, recommended by Dr. Schneiderlin, was extracted by Schmidt, of Marburg, from the scopolia japonica, a perennial, herbaceous plant of the natural order of solanaceæ, popularly known as the Japan belladonna. The first chemical analysis, made by Langgard long ago, resulted in the isolation of an alkaloid, rotoine (from roto, the Japanese name of the plant), which exhibited all the properties of the alkaloids of belladonna.

Scopolamine, indeed, exerts a mydriatic and a vasodilatory action (*i. e.*, it dilates the pupils and blood-vessels), but it also possesses a narcotic power, which inevitably produces a profound and dreamless sleep.

There are four alkaloids of identical chemical composition, namely, atropine, hyoscine, cocaine, and scopolamine, their empirical formula being $C_{17}H_{21}NO_4$. In other directions, however, these alkaloids are very different substances. Still, the physiological action of hyoscine and scopolamine are so nearly identical as to lead to their substitution, one for the other. In fact, excellent authorities state that scopolamine hydrobromide is identical with hyoscine hydrobromide, but lower in price. The question arises, "Why, if they be identical, is the price under the one name less than it is when the same substance is sold under the other name?" and this I will aim to explain, as follows:

The alkaloid discovered in scopolia, and named scopolamine, is probably a mixture of the alkaloid known as hyoscine and the alkaloid known as atroscine, which alkaloids are obtained from scopolia in greater abundance than hyoscine is obtained from hyoscyamus. In other words, the alkaloid hyoscine, obtained in small amounts from hyoscyamus in a very nearly chemical condition, is obtained from scopolia in larger amounts. Hence, when it is made from the drug scopolia, it can be sold cheaper than when it is made from hyoscyamus.

The physiological action of the material sold under the name scopolamine and the material sold under the name hyoscine are so nearly identical as to make them practically replaceable (in some directions, at least) the one for the other. In fact, the standard authorities at the present time consider them to be identical, and under the word scopolamine the latest authorities refer the reader for its action to hyoscine.

When this alkaloid unites with hydrobromic acid, it forms what may be called either hydrobromide of hyoscine or hydrobromide of scopolamine; but as the bulk of it is made from scopolia instead of from hyoscyamus, the term scopolamine is naturally being preferred by manufacturers. This term, however, is not as well known to physicians as the word hyoscine. Hence, physicians who find these terms used in replaceable positions may not comprehend just why the substance is thus separately designated.

To sum up, hyoscine and scopolamine are chemically identical, the one having been discovered in hyoscyamus, the other having been discovered in scopolia. The hydrobromate (or hydrobromide) of scopolamine has the same ultimate composition as the hydrobromate (or hydrobromide) of hyoscine, and thus permits of the same name. But since atropine and cocaine are also of the same chemical composition, it will be seen that this is not an evidence of identity in therapy. In our opinion, one has no more the right to dispense scopolamine for hyoscine than to label hyoscyamus as belladonna.—*Lancet-Clinic.*

Meanwhile our experiments were going on and after something over a hundred and fifty cases, at the hands of Dr. Lanphear, had demonstrated the incontrovertible truth of the fact for which we were contending, our first preliminary report was published and the profession was told through the proper channels of the efficacy and the safety of pure hyoscine, morphine and cactin compound, of which we shall have more to say later. The following is a quotation from a paper by Dr. Lanphear which appeared in the July, 1906, number of THE AMERICAN JOURNAL OF CLINICAL MEDICINE:

When I read the paper of Dr. W. C. Abbott, of Chicago (*International Journal of Surgery*) in which he declares that hyoscine should be the equivalent of scopolamine for producing surgical anesthesia I determined to give it a thorough trial. The reasons for this were first, that both ether and chloroform are objectionable, especially in abdominal surgery, on account of (a) the vomiting, (b) the increased shock in prolonged operation and (c) the danger; second, that scopolamine as an anesthetic for surgical work has proven (a) so dangerous and (b) so unreliable; third, that hydrobromide of hyoscine is a drug of well-known safety and absolute reliability. If the combination of hydrochloride of morphine and hydrobromide of hyoscine in proper proportions would produce an anesthesia of many hours' duration, as it should theoretically, the problem of a safe, cheap and easily administered anesthetic would be solved.

I have now used it in more than a hundred capital operations, with the most perfect satisfaction in all but a few, which required considerable quantities of chloroform in addition.

Then follow reports of major surgical cases, operated upon while under the influence of hyoscine-morphine and cactin. The cases reported by Dr. Lanphear were strangulated hernia, abdominal nephrectomy, excision of entire chest-wall, delayed labor, curettage and appendectomy, decapsulated kidney, hernia in hysteria and prolonged abdominal section. From this *practical* experience Dr. Lanphear made the following conclusions:

CONCLUSIONS

1. In the hyoscine-morphine combination we have an anesthetic of apparent safety and nearly perfect uniformity.

2. Two doses one and a half hours apart, supplemented by a few drops of chloroform, suffice to produce surgical anesthesia of at least three hours' duration.

3. There is practically no shock from even prolonged and very severe operations unless great quantities of blood are lost.

4. There is no post-operative vomiting—so distressing in abdominal surgery.

5. There is freedom from pain for many hours after operation so that patients often sleep all night after the most painful operations.

6. There is but trifling interference with peristalsis.

CAUTIONS

1. The patient may sleep for many hours after operation; a fact of which friends must be told in advance.

2. Patient may be aroused at any time after operation, but should not be, as much excitement (even delirium) may follow.

3. It should not be administered to patients under twelve years nor to the very old.

4. If sleep is too prolonged, strong coffee may be given by rectum.

5. A pure drug should be used, as atropine in the hyoscine upsets the anesthesia. The Abbott tablets have proven satisfactory.

6. Ether should not be given after this anesthetic—a few drops of chloroform now and then on an Esmarch inhaler will be all that is necessary in even the most restless cases.

7. Extreme care must be exercised not to give chloroform unless patient is very restless; a moment's waiting now and then with a few quieting words will be found better than chloroform.

METHOD

Two hours before operation one-quarter grain of morphine and one one-hundredth of a grain of hyoscine hydrobromide are given hypodermically in loose cellular tissue of the arm or neck.

One-half hour before operation patient is put on operation-table and told to go to sleep, with the positive assurance that there will be no pain! A second dose is now given.

If patient is not asleep at end of a half hour, a few drops of chloroform are given by inhalation, the patient being told not to move if he should awaken during the work.

Silence must be maintained during the operation lest the patient become excited.

The hands must be tied above the head to prevent involuntary movement, and it is best to tie the knees to the table in abdominal work.

Was Prof. Lloyd's graceful tribute to chemistry and his modest stand for the doctor widely republished? Oh no! but they sank into the hearts of the profession. Was Dr. Lanphear's report (not of experiments with dogs but in actual practice)? Certainly not! but surgery knows, and the profession will not forget. Did my deductions and my statements receive attention? Well, yes, they did, and in just this way.

First there appeared a long article in *American Medicine*, by H. C. Wood, Jr., calling attention to the fatalities from scopolamine-morphine, a fact that no one had disputed, and to which I had *already* called attention, six months before, as I have just shown you. Moreover, he endeavored to impress upon the minds of the profession the danger of using hyoscine—because of its alleged identity with scopolamine, also not proven, as Prof. Lloyd shows. This article was followed a little later by a communication to the *J. A. M. A.*, commented upon by Dr. Wood, reasserting the danger from scopolamine—but this time specifically asserting that the hyoscine-morphine-cactin compound (Abbott) was just as "dangerous" as any of the old scololamine-morphine mixtures, because, as he says (but not admitted), "scopolamine is simply a new name for hyoscine." This charge was directed specifically at me—and yet *not a single fatality was reported* from the H-M-C compound—or has since been reported. The whole argument is pure unsupported theory. One statement made by Dr. Wood particularly needs notice on account of its absurdity. He says: "The addition of hyoscine to the morphine can not greatly increase the insensibility to pain." Isn't that evidence enough that he had absolutely no *practical* knowledge of the subject he was discussing.

The unfairness of Dr. Wood's reply, in which he claims against the use of hyoscine-morphine-cactin the objection properly held against scopolamine-morphine, is evident to all, and yet this was heralded to the members of our splendid American medical profession through its journal as the finale on this subject. Why? Well, one wouldn't have to guess twice. Did it stick? No! as I shall show you later on.

My reply to this communication, their further reply to me, the communication of Dr. W. J. Robinson in the same number and other phases of the subject from a controversial point of view I have not here space to publish. But, as summing up the whole matter I feel impelled to publish a portion of an article on this subject which appeared in Dr. Robinson's paper, the *Critic and Guide:*

The controversy that has recently arisen as to the identity or non-identity of scopolamine and hyoscine, as to the relative safety of the hyoscine-morphine-cactin anesthesia, and as to the power of hyoscine to act as a hypnotic-anesthetic is full of important and interesting points. The controversy *per se* has no interest for me, except an academic one; but it is extremely important for the lessons it conveys. It shows, as nothing else of recent occurrence does, the dogmatic tone of officialdom, the intolerant attitude of the *soi-disant* authorities. And it shows how false the

ipse dixits of so-called authorities are, how dangerous it is to follow them blindly without examination or critical analysis.

Let us take up the question of the identity of the two alkaloids first. Has it really been decided unanimously and beyond the possibility of doubt or question, as Dr. Wood, Jr., would have us believe, that hyoscine and scopolamine are absolutely identical in every respect and may be used interchangeably? *Not by any means.* If you will read carefully, you will agree with me that the question is at least still an open one.

First. Here is what one pharmacologist says on the subject. Prof. J. V. Shoemaker makes the following unequivocal statement (*N. Y. Med. Jour.*, October 7, 1905):

"It may be of importance just in this connection to note, as pointed out by Hesse, that commercial scopolamine hydrobromide contains an admixture of a small proportion of another powerful mydriatic alkaloid known as 'atroscine,' which is isomeric with hyoscine or scopolamine. Atroscine apparently bears a similar relation to the latter as regards mutual convertibility that hyoscyamine does to atropine. Some pharmaceutical authorities indeed allege that *scopolamine hydrobromide should be erased from the German and United States Pharmacopeias* on the ground that it is merely a mixture of hyoscine hydrobromide and atroscine hydrobromide, and not itself a definite chemical compound. I call attention to this interesting point merely to note the fact that commercial scopolamine hydrobromide may differ in its physiological action, owing to the variable quantity of atroscine present; this may also offer an explanation of *any difference that may be observed between the action of scopolamine and hyoscine hydrobromide.*"

Of course Dr. Shoemaker may be mistaken, but at any rate his statement shows that not all pharmacologists agree on the subject.

Second. The Pharmacopeial Revision Committee seem to have felt that the question of the identity of the two alkaloids has not yet been finally settled, for they retained the two alkaloids under two separate headings. Had they felt that scopolamine and hyoscine were *absolutely* indentical, in other words, that the two words were synonymous, they certainly would not have listed them under separate headings. Eserine, which is merely a synonym of physostigmine, is not listed under a separate heading, but is only mentioned in the index as a synonym. The same is true of all other synonyms. It is clearly apparent, therefore, that the committee of revision was not yet ready to accept scopolamine merely as a synonym of hyoscine.

Third. But here is a *still more important point.* Merck of Darmstadt and Merck & Co. of New York, the largest (if not the only) manufacturers of hyoscine and scopolamine in the world, list those two alkaloids under separate headings, and what is more, *sell them at widely different prices.* They list scopolamine hydrobromide in 5-grain vials at 21 cents a grain, while for hyoscine hydrobromide in 5-grain vials they charge $2.00, or 40 cents a grain (and in single grain vials they charge 60 cents a grain). Now what does it mean? It means only one of two things and it can mean nothing else. If scopolamine and hyoscine are *absolutely* identical, then Merck & Co. are simply cheats and frauds. It is certainly deliberate cheating to take the *identical* substance, put it in two bottles, label one bottle scopolamine and sell it at 20 cents a grain, and the other hyoscine and sell it at 60 cents a grain. Would any firm, with any sense of honor, be guilty of such a disreputable practice? And if not, there is only the other horn of the dilemma left. That hyoscine and scopolamine are different articles; not necessarily different chemically, but different in their purity; infinitely greater care is taken in the preparation of hyoscine, which is freed from the numerous impurities with which scopolamine is contaminated.

Having shown that the question of the identity of hyoscine and scopolamine is anything but settled, and that, at any rate, hyoscine is a much more refined, purer and more expensive product, and having also incidentally shown that Dr. Wood has no right whatever to express any opinion on any chemical subject, we come to the question of the safety of the Abbott-Lanphear anasthesia. Personally I can pronounce no opinion, I having used it in too few cases to be entitled to an opinion. But this I will say emphatically: Dr. Wood's statistics are perfectly worthless as data by which to judge the Abbott-Lanphear method. Dr. Wood's statistics are based on the foreign results obtained with scopolamine and morphine, while the Abbott tablet consists of chemically pure hyoscine and morphine combined with the cardiac tonic principles of cactus grandiflorus, cactin. A very slight change in formula may give us entirely different results. It is unfair, it is not honest to attempt to apply the results obtained with one preparation to those of a different preparation.

And now we come to the question of the anesthetic-analgesic power of hyoscine. Here Dr. Wood put his foot in it for fair. How to explain his statement on any other grounds but those of bias, misrepresentation or plain ignorance, I do not know.

The question of the relative safety of hyoscine-morphine anesthesia is a legitimate subject of discussion, but how one can make the statement that "hyoscine has practically no power as an analgesic," that "the addition of hyoscine to the morphine cannot greatly increase the insensibility to the pain," is absolutely beyond my comprehension. It is beyond my comprehension how a scientific man can attempt to deny an easily demonstrated fact. Thousands of the most serious capital operations—amputations of limbs, laparotomies, appendectomies, nephrectomies, ovariotomies, tumor removals, etc., have been and are being performed under the Abbott-Lanphear method, and here comes a theoretical pharmacologist and wants to make us believe that black is white and that hyoscine is not hypnotic-anesthetic. How is it that the patients operated upon feel no pain during the operation? Were they hypnotized? Or were they all under the influence of Christian Science? If Dr. Wood, Jr., believes, as he tries to convey the impression of doing, that all the anesthesia is due to the morphine, then he is beyond criticism. Let him try to saw off a leg or perform a prostatectomy or a hysterectomy under morphine alone. He will then quickly become a strong believer in the hypnotic-anesthetic power of pure hyoscine; and

he may also begin to believe in the efficacy and superiority of the hyoscine-morphine-cactin combination.

Above all, it is well to remember that the crucial test of everything is experience, and it is results that count. The finest-spun theory must give way and doff its hat to the humblest fact.

NO QUESTION IS SETTLED TILL IT IS SETTLED RIGHT

Unfortunately for the profession there appear to be two factions in the medical press, the one striving to dominate the doctor and suppress fact in favor of cheap commercialism through the drug retailer, who is alleged to stand between the ignorant doctor and his may-be victims, to correct his errors and to pass on what he shall do, what he shall give and how he shall give it, and the other sort o' thinking that the doctor, under the circumstances of education and training and the fact that he is on the ground to *see how drugs act*, should have a word to say himself.

However this may be, down one line has gone a rapidly attenuating repetition of error, while down the other flows a stream of fact based on experience that bids fair to become an inundating flood.

The silence of the controlled and I-don't-dare-to-do journals is pitifully noticeable, while the fairness of those not so hampered is commendable to the uttermost.

In giving the above I have merely stated facts as they exist. I could go on to great length, for the material is at hand, but it would all tend in the same direction. The facts are:

1. That scopolamine-morphine has much against it because scopolamine as usually served is an uncertain mixed alkaloid, therefore should not be used.

2. That the uncertain good in scopolamine is represented with certainty in hyoscyamus-derived hyoscine (not in that so named from scopolia).

3. That the addition of cactin (Abbott), the genuine active principle of a properly collected and treated cactus grandiflorus as a heart tonic is essential to best results.

4. That hyoscine, morphine and cactin comp. (H-M-C, Abbott)—hyoscine hydrobromide, gr. 1-100; morphine hydrobromide, gr. 1-4; cactin, gr. 1-67—is a good formula, the best yet devised; and that its use in surgery, obstetrics and as a relief for pain and sleeplessness is justified—under proper technic that it is safe, sure, and pleasing in result. The technic in brief is as follows:

For major surgical operations: Give one tablet three hours before operation, one tablet one and one-half hours before operation and one tablet a few minutes before cutting.

For operations of less magnitude: Give one tablet two hours before operation and a second a half hour before cutting; supplement with a few drops of chloroform by inhalation for skin-incision.

For obstetric work: Give half a tablet when os is dilatable; repeat in one or two hours if needed to control pain. For forceps delivery one full tablet one hour before operation.

Further helpful details are given by Dr. Lanphear, as follows:

Mental Disturbance.—Dr. Vandover, of St. Louis, has had two cases in which slight transitory mania followed the use of the anesthetic. In a number of my cases the patients have been a little "drunk" for some days, but not enough to occasion alarm.

Lowered Respiration.—Many have called attention to a supposedly dangerous symptom—diminution of the respirations to eight or ten per minute. This is something to be expected, and should occasion no alarm unless the face becomes purple instead of red. When this occurs, or when the respirations sink to six per minute, the patient may be turned upon the side and shook about every three or four minutes, being told to take full breaths. In a little while the number will increase to ten or twelve per minute, which is the normal in this form of anesthesia.

Increased Heart's Action.—Several surgeons have become alarmed at the rapidity of the pulse: 100 to 130 per minute. Patients in whom this is noted are unduly sensitive to hyoscine. In such a condition, to produce profound surgical anesthesia a few drops of chloroform may be used by inhalation, or the third dose may be one of pure morphine (gr. 1-4) without the hyoscine and cactin. But a pulse of 120 usually becomes 90 after operative measures are begun; so it need occasion no anxiety.

Time of Administration.—As our knowledge of the character of this form of anesthesia increases, it is demonstrated that we all have been operating *too soon* after the administration of the drug. For a se e e operation (like amp'tation of a leg or a hystere tomy) I now give the first dose three hours before operation, and the second an hour and a half later. Then if a third dose is needed, it is given when patient is put on the table,

an hour and a half after the second dose. Analgesia should be perfect in a few moments and will last for hours.

Time of Awakening.—A question frequently asked is: When should the patient be awakened? And most doctors seem to fear too long slumber. *The longer the patient sleeps the better*—eight to twelve hours being desirable; longer will do no harm if the breathing keeps above eight to the minute.

Amount to be Given.—Numerous letters contain the statement: "My patient was profoundly unconscious an hour after the second injection," and the query: "Should I have given the third dose?" Certainly not! Enough is enough—of anything. If one dose produces complete insensitiveness to pain even a second dose is not needed; I have made a vaginal hysterectomy with only a single dose and not a drop of chloroform.

Use of Atropine.—It is strange how doctors cling to the idea that atropine must be given with morphine. *In this anesthesia atropine must not be given either with or after the morphine*—it makes the patient crazy.

Use of Strychnine.—Too much strychnine is being used after operations. With this anesthetic it may be given as after chloroform or ether if one so desires, but it is apt to excite unduly the patient and make him restless instead of tranquil, as he should be.

Age Limit.—I have not given it to any patient under ten years of age, but if the general conditions were good there is no reason why it should not be given—say in half doses—to a child of six; but children bear chloroform so well there is little to be gained by use of the newer agent. In old people if there be no marked atheroma and no renal insufficiency there should be no limit on account of age—conditions, not years, must be the guide; some men are extremely old at 60; others are young at 70. I have operated on several patients close to 65, with no ill effects; but I have declined to give it to several at 60.

In Labor.—So far as reports thus far received of its use in labor are concerned, there is uniformity of opinion that it has no bad effect on the mother. Some observers claim that there is a little more trouble in making the child breathe after two or more doses to the mother, but no fatalities have been recorded directly traceable to the anesthetic. It does not favor post-partum hemorrhage.

How to Try it.—Many surgeons say: "I would like to try it, but I am afraid something might happen—and I know chloroform (or ether) is safe in my hands." To such I say: "Give one dose two hours before operation and see how little chloroform will be required and how little nausea and pain follow. Next case try one dose three hours before operation and a second dose one hour and a half before and see how it acts. Later you will learn why and when to give a third dose."

To Control Pain.—The combination of morphine, hyoscine and cactin gives far better results in the control of pain than the old morphine and atropine tablets. For the relief of pain with shock—such as gallstone colic, renal colic, etc., I am sure this combination will give far better satisfaction than older remedies; and if a second or third dose be given it puts patient in ideal condition for operation should one be determined on later in the attack.

Our vindication is complete. At this writing over a thousand physicians have reported to me some thousands of cases and the reports are coming in faster than I can note them: able physicians of the highest standing are reporting results little short of the marvelous. Thus far, I repeat, *not a single fatality* has been reported to me as following the use of the Abbott preparation of hyoscine, morphine and cactin, and possibly six or eight disagreeable results only—these all traceable to faulty technic. In one case a physician from an Iowa town wrote me that several deaths had occurred in his place from the anesthetic. I investigated. What did I find?

I will let the corrspondence, which follows, tell the whole story, omitting all names for reasons which are apparent. Here is the letter:

Dear Doctor Abbott:—

Your letter of the 13th, in regard to your hyoscine, morphine and cactin anesthesia, was received this morning. I bought a supply of your representative, but have not used it all. My reason for not using it was three deaths that came under my observation from it in the ——— Hospital at this place, and one other case that did not die, but had a very narrow escape. These patients were not mine, but were in the hands of good men, so that no fault can be found with them on the score of their not using it properly.

All these patients died of respiratory paralysis, preceded by cyanosis of marked degree. Two of the three that died did not have the third injection. In all, I think, ten cases were treated with it, of which three died.

Very truly yours,

———

Now wasn't that a stunner? But we didn't believe it was the Abbott product that caused those deaths, so determined to investigate the matter to the bottom. We wrote the doctor again for more facts and received the following:

Dear Doctor Abbott:—

I have your letter of the 15th, and in reply will say, I cannot swear that the preparations used were yours, in all the cases. The cases were all surgical cases, and as I stated before had only two injections and then a little ether given them to complete the anesthesia.

The records of the cases would have to be gone over to get all the information you ask for, and as I haven't them at hand, can't fully comply.

Very truly yours,

This didn't give all the information I wanted, so I sent a competent representative to make a personal investigation. His letter, which follows, clears up the whole matter:

Cedar Rapids, Ia., March 25, 1907.

Dear Brother Abbott:—

As planned, I reached ——— Saturday night and was able to clean up the matter reported to you by Dr. —— yesterday and get back here last night.

The cases that died had scopolamine-morphine anesthesia used, supplemented with chloroform. You can better judge of the whole matter when I tell you that the cases that died were hopeless ones from the beginning, and that none of them died sooner than two or three days after the operation was performed

The case that "had a very narrow escape" was that of Dr. ——. Here are the facts: Dr. —— was taken with acute pain in the region of the appendix at 11:30 a. m., and in a few minutes Dr. —— was at his home, and as Dr. —— did not have any of the H-M-C compound at his home, Dr. —— gave him a hypodermic of morphine, as Dr. —— supposed. He requested Dr. —— *not* to give any *atropine*, but Dr. —— paid no attention and gave a hypodermic of morphine and atropine, 1-4 and 1-150. Later another 1-4 gr. of morphine alone was given, and when the doctor got to the hospital, he was given one tablet, full strength, of H-M-C compound at his own request, and as soon as he could be gotten ready, some chloroform was given and the operation performed. From the severe pain, he was in a state of shock when the first morphine was given. You will see that he had atropine, 1-150 grain; morphine, 3-4 grain; hyoscine, 1-100 grain, and cactin, 1-67 grain, besides chloroform. This was a whole lot when you consider that the operation was performed two and a half hours after the attack came on. Then he only had one dose of our preparation.

Dr. —— had a very close shave, as they had to work with him for several hours before he was out of danger. He says that he had morphine narcosis, and that our preparation had nothing to do with the result. He has used it in a number of operations, both before and since, and likes it very much.

And that's the whole story of these "deaths" reported to us from the use of hyoscine, morphine and cactin comp. (Abbott).

Terrible, isn't it?

Up to date, April 20, this is the worst report that has come to our notice. In one other town three deaths were reported; but a careful investigation demonstrated the fact that instead of their using H-M-C, Abbott, they had been using an imitation, just-as-good preparation, put out by one of the big houses which always rushes to imitate, in their own way, every good thing. On the other hand we have on file reports of thousands of cases from the practice of a large number of good men in highest standing in which H-M-C, Abbott, has been used with unqualified success. A few are reported in this issue, following and elsewhere.

Experience With 350 Anesthesias

After an experience of more than 350 anesthesias with the H-M-C tablets I am convinced that there is a great future for this form of anesthesia both in surgery and obstetrics.

In obstetrical work delivery may be accomplished in the semiconscious state, a condition in which the patient is able to assist in the expulsive efforts at the command of the accoucheur, yet is so "drunk" that next day there is absolutely no memory of the incidents of labor; while under profound anesthesia of three full doses (sometimes only two) the most serious of obstetrical operations may be performed. I have made one Cesarean section under its influence (two doses, with a few drops of chloroform) and and it was entirely satisfactory.

I believe that in surgical work of the near future practically every serious operation in this country will be done with the patient in anesthesia induced by two of these tablets supplemented by a little chloroform by inhalation. The freedom from shock and the absence of post-operative pain and vomiting are of themselves sufficient to enthuse the most incredulous surgeon after a few trials, and after extensive experience I believe all will feel as I do: that return to old methods of anesthesia would be a distinct turn backwards of the wheel of progress.

EMORY LANPHEAR.

St. Louis, Mo.

Appendicitis, Hernia and Amputation

Case 1. Strong, young man, appendicitis. Tried faithfully for two and a half hours to anesthetize him with chloroform and ether, and failed. Two days later I gave him one

tablet hypodermically one and one-half hours before operation, and one-half a tablet fifteen minutes before putting him on the table. I opened the peritoneum, when the patient aroused and screamed. As soon as he quieted I had a few whiffs of chloroform given, which he took beautifully, requiring only thirty drops to complete a most successful operation.

Case 2. Woman, aged 50, very frail, femoral hernia strangulated five days. With one tablet, an hour previous to the operation, I was able to complete the radical operation, resecting six inches of gut. This patient took one-half dram of chloroform during the operation, was on the table one hour, and came off very much less shocked and in by far better condition than when she went on the table.

Case 3. Amputation of both feet of a boy, for frost bite. Used one tablet and a very small quantity of chloroform. I could mention several other cases, some in the obstetric line, which were equally satisfactory, but it is useless. I consider the compound the greatest help to the surgeon's work yet known. Tomorrow I am going to do a thigh amputation with it in a boy thirteen years old, for tubercular knee of months' standing. He is so weak and thin that he could not possibly stand chloroform or ether.

HUMPHREY SILVERTON BELT.

South Boston, Va.

Not Willing to be Without Them

I have not used the tablets in cases enough to make a satisfactory report. But I will say, from the success I have had with them, I would not be willing to be without them.

JOHN BOICE.

Denver, Colo.

Immediate Relief in Asthma

I have used the H-M-C comp. quite frequently, with the best satisfaction. In all cases the results were all that could be asked. In spasmodic asthma it gave immediate relief. I have combined hyoscine and cactin with codeine, with even pleasanter results following.

H. C. HOWARD.

Champaign, Ill.

Saved the Patient's Life

The H-M-C tablets have given me great satisfaction and my patients great comfort. In one case of gangrenous appendix, I feel they saved the patient's life, as the patient slept all night, with no vomiting or nausea and practically no shock. In an operation for cystole and repair of perineum in a very nervous patient, no nausea followed, and the patient was perfectly comfortable at all times. The same results in amputating the cervix and curetting. The patients seem to have no fear of operation when they take this anesthetic. In my medical practice I find it a very useful combination and use it to advantage in some case nearly every day.

MARCUS A. NEWELL.

Albany, N. Y.

Three Labor Cases

We have used your hypnotic anesthetic tablets in three labor cases; they bring the pain down to the lowest possible degree. In one case, where we used two tablets in two hours, we delivered the patient of a ten-pound baby with forceps without her knowing that the child was born or that forceps were used. Her pain must have been *nil*. One babe had been dead a week before delivery. The other two were born with suspended animation but revived after fifteen minutes' work. Uterine contractions were lessened in each case, although each patient had had ten grains of quinine. We had used the tablets as an anodyne, with most admirable results.

C. F. KERCHEVAL.

Greensburg, Ind.

Far Superior to Chloroform

The hypnotic anesthetic has been entirely satisfactory. In obstetrics it is far superior to chloroform. No nausea, shock or disagreeable symptoms with the mother. The child is born cyanotic but comes round all

right. Our county medical society has taken up the matter; all reports have been very favorable. I think it will have a national bearing in the increase of population, as women will cease to dread the pangs of child-bearing, and will increase the number of children born. The nation will owe you a debt of gratitude.

J. S. DICKINSON.

Trenton, Ky.

Twenty Cases Successfully

I have used the H-M-C anesthetic successfully in twenty cases, full reports of which I have kept, as they were all hospital cases.

J. B. WRIGHT.

Trenton, Mo.

Just the Thing in Miscarriage

I find Abbott's hypnotic anesthetic just what I have wanted for some time, and will keep a supply always on hand. In miscarriage, where the placenta must be removed under anesthesia, they are the very thing and relieve the operator of the worry of chloroform or ether. I believe them superior to the morphine and atropine hypodermic, as more lasting and certain in effect.

A. D. BARNETT.

Guilford, Mo.

Experience, Not Theory, Counts

In the February number you printed an abstract of my reported experience with your hypnotic anesthetic (hyoscine, morphine and cactin comp.)

Since using the hyoscine, morphine and cactin tablets in a number of different cases I would not be without them. They are valuable in obstetrical as well as surgical work, and in many other cases where morphine or hyoscine is needed. The hyoscine prolongs the rest so well in pain cases that a second dose of morphine is not needed nearly as often.

At the same time there appears a to me unjust and unfair communication in *The Journal of the A. M. A.* on the subject, with which I most emphatically do not agree.

I do not wish to take back a word which I have said; but I have something to add. Anyone who has used morphine much, knows that, although usually one has little worry from its use, occasionally alarming symptoms arise, owing to an idiosyncrasy against the drug. So, in a morphine compound like this, we must expect annoying symptoms to occur at times.

In using hyoscine, we now and then get marked cerebral excitement instead of the usual nice sleep. In such cases the face is much flushed. I have observed this several times; and I have always been particular whose pharmaceuticals I use. At times I make my own tests, to insure purity; so I know the excitement was not due to atropine or atroscine.

Recently, in an obstetric case, I injected one-half of one of your tablets. Following its use rather marked cerebral excitement occurred. It did not worry me, but to pacify the family, I had to administer chloroform somewhat earlier than I usually do. [You did not give "dose enough."—W.C.A.]

This will not discourage me in its use, but had the occurrence happened with one not familiar with the action of hyoscine, he would have been much alarmed.

I believe we must be conservative in using this compound, as we are with any other hypnotic, analgesic or anesthetic (and this is the three combined) or any other drug which brings our patient near the danger line.

J. W. ROBINSON.

McCammon, Idaho.

—:o:—

During the past few weeks we have had hundreds of communications from physicians throughout the country on this subject, and with two trivial exceptions all enthusiastically praise the preparation. See reports in this and previous issues.

Capital operations are being done under hyoscine, morphine and cactin anesthesia by prominent surgeons in many localities, and the results, so far as reported, are ideal in every case. Obstetricians have used the preparation, not once, but many times, in

difficult and hard labors, and their experiences have also been ideal.

Of course, Doctor, we cannot so profoundly impress the human system—we cannot subdue the senses, obliterate sensation and suppress consciousness—without, to a certain extent, running in sight of danger; but the intelligent use of the preparation offered by us will prove it to be comparatively free from danger, as free, perhaps, as any anesthetic can be, while possessed of certain essential advantages in its favor. This you will easily appreciate as you review the well-known action of each drug and then note the combined effect.

Just think for a moment of the test to which this preparation has already been subjected. So far it has been presented to the profession with very meager literature, and, yet, within a few months our records show hundreds of capital operations performed with satisfaction, hundreds of parturient women delighted with equally good results, while only two unsatisfactory reports (and both from misuse) have been rendered. In one case not sufficient of the drug was used and in the other altogether too much.

Where directions have been followed, results have been ideal in every instance and not one death or seriously disturbing symptom has occurred.—ED.

Relief in Carcinoma

To me the H-M-C combination has not only been entirely satisfactory but it has been and is still a mystery as to the source of action. I have used it frequently and every use recommends it further. It has given a carcinoma patient relief and sleep when nothing else would do the same.

P. L. BRICK.

La Mars, Ia.

In Early Abortion and in Delirium

I used the H-M-C comp. tablets in a curetting for retained decidua in a case of early abortion. The patient had been flowing for over two months. Two tablets injected at an hour-and-a-half interval produced complete anesthesia, the patient never stirring during the entire procedure of dilating, curetting and packing. No nausea afterward, excepting from the swallow of water. I was delighted with it.

I recently injected one tablet for violent delirium in typhoid fever. A strong girl of seventeen, who needed two persons to hold her. She fell asleep in forty-five minutes and slept nine hours.

I have found the combination very effective in troublesome insomnia resisting common hypnotics.

L. A. BRUSTAD.

Park River, N. D.

Obstetrics and Dentistry

Case 1. Multipara, age 41. November, 7 p. m. Pains every four minutes. Os dilated, head presenting at inlet. Gave one H-M-C comp. tablet hypodermically at 7:25 p. m. Pains became less frequent on lying down. Complained of head whirling, mildly delirious, easily aroused. At 10:15 p. m. delivered of a nine-pound boy, who after giving one yell apparently died, only a weak and slowly acting heart showing life. Resorted to artificial respriation. After twenty minutes' constant work he gasped, sighed and took up respiratory action. The mother slept till 4 a. m., when she awoke feeling fine, remembering very little about the birth. Arose at 8 a. m. without dizziness or faintness. She has heart disease, on which the combination seemed to act nicely. [A little too much morphine, Doctor. Read Dr. Holt's paper in this issue. The half-size tablets will prevent trouble.—ED.]

Case 2. Multipara. December 1. Cervix slightly dilated in the morning. At 10:15 p. m. pains very severe, cervix dilated. Gave one full H-M-C comp. tablet hypodermically. At 12:30 a. m. delivered of a ten-pound boy. She was profuse in her praise of the new remedy. The infant presented the same symptoms as in Case 1, requiring the same resuscitation efforts, with the same results.

Case 3. Primipara, age 21, December 4, 2:50 a. m. Cervix slightly dilated, wire edge. At 7:45 p. m. os dilatable, pains every ten minutes. At 8:25 p. m. injected

one tablet H-M-C comp. Repeated at 11:25 p. m. for severe suffering. She went to sleep, regular pains continuing, the child born at 2:15 a. m. The mother slept several hours. The infant was affected as in the two preceding cases.

Case 4. Primipara, age 32, December 25. The pains were very frequent and severe. Chloroform alone was used. The child was still-born. It was poorly nourished, the cord exceedingly small. The placenta very small and fatty over the whole surface. I did not use the H-M-C comp. in this case.

Case 5. December 31. Mrs. G. desired an anesthetic for removal of a tooth. On account of heart disease it was unsafe to give ether or chloroform. Gave a full tablet of H-M-C comp. hypodermically and in forty minutes Dr. Kinsley removed the root painlessly. The patient slept two hours and had no unpleasant symptoms whatever.

E. BURD.

Lisbon, Ia.

They are Satisfactory

I have used the tablets several times very satisfactorily. No pain, nausea or other after-effects. They are all right anyhow, if Lanphear says so.

F. C. MONKS.

Kitanning, Pa.

Contracted Pelvis—Still-birth

Woman, age 25, primipara, had been in labor thirty-six hours, child dead, pelvis contracted. Head had not advanced for twelve hours. Gave one-half tablet. Within twenty minutes the patient was asleep and but slightly aroused during contractions, which were very strong. In one hour gave the second half-tablet, and half an hour later delivered with forceps. The uterus contracted firmly and the placenta came in due time without the slightest hemorrhage. The patient slept three hours; pulse normal, respiration 16 during sleep. She remembered nothing after the first injection. I am well pleased and will use it again.

B. E. ESCUE.

Sharon Grove, Ky.

Forceps Delivery—Gallstones

There is less nausea after the H-M-C. comp, tablets than after morphine alone. I gave one tablet in a forceps labor case, which then required but half the usual amount of chloroform. In a case of gallstones always requiring a grain of morphine I gave two tablets together. He was delirious some hours and did not sleep. In several cases there was slight delirium and little sleep, but the pain was relieved.

E. L. BROWN.

Bloomington, Ill.

—:o:—

Doctor, you are giving too large doses. In your next case of gallstone colic, use only *half* a tablet.—ED.

Twelve Cases of Major Surgery

I have used your H-M-C tablets for general anesthesia in twelve cases comprising herniotomies, appendectomies, one perineal abscess, one deep phlegmonous abscess of thigh, rectal fistula, restoration of cervix uteri and perineum. In one case a girl of ten, with caries of the femur, one injection was given. She slept, but would rouse when operation commenced. This was the only failure. Two of the twelve cases required one-fourth as much chloroform as usual. One or two just a few whiffs to complete anesthesia. In but one case did vomiting follow, an emergency case in which the patient had recently eaten heartily. All were allowed to take water freely soon after operation. In no case was there any cause for alarm or any untoward effects.

J. C. HALL.

McPherson, Kans.

Operation for Movable Kidney

My patients come to the table in splendid condition and remain so with little anesthetic. I operated on a movable kidney after the patient went to sleep; used one-half ounce ether. All come out nicely but a little slow—a commendable feature, as they do not get excited but fall into fine refreshing sleep, waking refreshed and ready to assume life again. The tablets

are cheap, and would be at fifteen cents apiece.

I operated for hemorrhoids, giving two tablets two hours apart. The patient talked so persistently that I threatened to anesthetize her if she did not quit. She said she could feel me working but had no pain, and would have liked to kick me but could not move the feet.

D. W. EVANS.

Scranton, Pa.

Amputation of the Leg

Jan. 22, 1907. Called with Dr. R. G. Taber to a man of 72, who had had a ball through his foot in the Civil War. The wound had never healed and recently gangrene had set in, extending up the leg. The patient had chronic nephritis, a weak heart with valvular disease, atheromatous arteries and was generally broken down—a bad case for any anesthetic. Gave one H-M-C tablet at 11 a. m., another at 12:30 p. m. By 2 p. m. respiration had dropped to ten. An amputation was made at the upper third of the leg. He did not appear to suffer the least pain, could be aroused by a sharp word, but immediately lay down and became quiet. The pulse was good throughout. He recovered consciousness within two hours. He died three days after the operation from general debility, not in any way hastened by the anesthetic.

We gave not to exceed forty drops of chloroform. I consider this a perfect success, for either chloroform or ether would have been fatal.

G. R. NEFF.

Farmington, Ia.

Operation on Rectal Fistula

Results from H-M-C comp. have been most gratifying. I used it first in operating for rectal fistula where more profound anesthesia is required than in any other cases. The anesthetic effect was most pronounced. I have found it equally serviceable in all classes of cases and can confidently recommend it to the profession as reliable and safe and admissible in almost all cases.

S. E. BAMFORD.

Hastings, Neb.

Two Laparotomies and Hemorrhoids

I have used your H-M-C comp. in two laparotomies and one hemorrhoidal operation, and am well pleased with it. I shall continue using it more and more where there is no contraindication.

R. G. BUCHANAN,

Independence, Ia.

Given Before General Anesthetic

Abbott's hypnotic anesthetic tablets have given entire satisfaction in every case in which I have used them. Given before commencing the anesthetic in every surgical case they have materially lessened the amount required without producing any unpleasant effects whatever.

J. W. STARR.

Pocahontas, Ia.

Mania, Delirium and Insomnia

I have had a very pleasant acquaintance with the H-M-C tablets, employing them with gratifying results in mania, delirium and insomnia from nervous conditions in which straight morphine could not be well borne. Have not observed any deleterious effects.

W. L. RANSON.

Madrid, Ia.

—: o :—

I don't like a scrap. I tried my level best to keep out of this one. I believe in the real working doctor—that he has a right to be heard, that his experinece *does* count, that he has a right to protect himself and that no theorist or dominating clique or commercial interest may say him nay. Realizing the handicap jealously put upon CLINICAL MEDICINE I tried to introduce the subject through other channels and in the words of others, that the idea might not fall for want of authority-support; but it would not go, and yet here it is one of the most vital questions before

the profession today—in the mouths and hearts of all—a winner!

W. C. ABBOTT.

Chicago, Ill.

—

CHANGE IN TREATMENT, DIFFERENCE IN RESULTS

I have been using your treatment since 1895 for typhoid fever and have never lost a case since, although I lost lots before I instituted this treatment. Even through the epidemic here I had success. I just had a very bad case in a young lady of eighteen, who contracted the disease in Pittsburg, and had I not pushed the remedies she would have died. I gave her one intestinal antiseptic every hour night and day for two weeks, and 20 grains of formin and 20 of salol in each twenty-four hours, with nuclein 90 drops in twenty-four hours, and with it all, the stools were dark and offensive; but on the fifteenth day the temperature dropped to 99°F.

H. J., NEELY.

Butler, Pa.

—:o:—

We note with satisfaction the results you have obtained in the treatment of typhoid. Just such reports come to us from various parts of the country and in our own practice we expect just such results. Are you familiar with the mentholated saccharinated tablet of the sulphocarbolates? This is a very useful form for solutions, enabling children and fanciful women to take full doses without nausea. It is a very good plan to make a solution of the tablets and then add a little aromatic elixir.—ED.

ATROPINE AS A HEMOSTATIC

Some one in some issue of CLINICAL MEDICINE has said that he had no use for atropine. Following are some cases in which atropine was used, and the results were all one could desire.

Most of my cases were hemorrhages, but a few were those in which an antispasmodic was indicated. Since beginning the use of the alkaloids, it has been a question with me which was the most indispensable. They are all indispensable but with me atropine comes next to aconitine. In the first year of my use of the alkaloids hyoscyamine was my ideal. Atropine was not used because the writer was afraid of it, and he was afraid of it because he did not know enough about it to use it intelligently. A year's study of everything available about atropine, including Ringer's Handbook and Shaller's Guide, and a study of Foster on the circulation, blood pressure, and the functions of the pneumogastric and splanchnic nerves, gave the writer a working basis for the use of atropine. The labor was well spent. The results have been uniformly good, and now, as before said, next to aconitine, atropine is considered by the writer the most useful of the alkaloids.

1. Recurrent postpartum hemorrhage. Mrs. G., 35 years old. Hungarian. Fifth confinement. On January 14 Mrs. G. was delivered of a boy. Confinement was normal in every way. Placenta and membranes were carefully examined and found to be entire. Patient was directed to stay in bed ten days, just as a matter of form. (These people do as they please and usually get up the third day.) Mrs. G. went about her household duties on the sixth day. Ten days after her labor I was sent for in a hurry. Mrs. G. was sitting up in bed, fully dressed, and having an alarming hemorrhage. Hasty examination showed the uterus dilated nearly as much as immediately after delivery. All the pillows, bolsters and bed clothing were placed under her feet and thighs and her head depressed. The foot of the bed was elevated about a foot. There was no one with her except a woman who could not understand English, making her assistance of almost no value.

After giving her 1-125 of atropine, 1-125 of glonoin and a teaspoonful of ergot, firm control was secured of the fundus and an attempt made to introduce a tampon in the vagina. It was met with a gush of blood that was simply terrifying. In ten minutes the atropine and glonoin and

ergot were repeated and constant massage made. Mrs. G. became nearly unconscious and the pulse at the wrist could hardly be felt. In about twenty minutes a hypodermic of 1-125 of atropine and 1-4 morphine was given and massage continued. Very soon thereafter her pulse became slower and stronger, her lips, which had been blue, took on their natural color and a slight flush appeared on her cheeks. The womb began to contract and in an hour's time, under massage, had become the size of an orange, and the bleeding greatly stopped.

Intelligent help had arrived, and atropine and glonoin were left to be used in emergency, massage of the fundus, however, was continued for another hour. Patient complained of thirst which was, no doubt, due partly to the hemorrhage and partly to the atropine; also headache, due to the glonoin. She was ordered to take a tumblerful of hot milk with a little salt in it every hour. She was not allowed to move for forty-eight hours, when the tampon was removed and her head elevated. Five days afterward she got out of bed for the first time. There was some slight bleeding and she was put on ergot, 20 drops four times a day. She is now about her work as usual.

2. Mrs. P., 19. Menorrhagia Her usual period was three weeks and the flow continued nine or ten days. Frequently she became so weak she could not attend to her household duties. She was given uterine tonic granules, three times a day between menstrual periods, and told to use atropine up to five a day if necessary to control the flow after the fifth day. After four months she no longer requires the atropine, and she never had to use more than three granules a day. Other medicines were of course given as indicated by special conditions.

In three cases of intractable nosebleed, atropine and glonoin were given in doses of 1-125 grain each, and in every case with the help of such mechanical means as will readily suggest themselves. The hemorrhage was stopped within twenty minutes.

In two cases of asthma, one a boy of 14 years, the other a gentleman of 65, atropine and glonoin, alternated, cut short and controlled the paroxysms.

In a case of vomiting of pregnancy atropine was given because the patient complained of cold hands and feet; no thought was had that it would control the vomiting, but it certainly did so. Undoubtedly the redistribution of the blood through the extremities where it belonged, relieved the congested and irritable stomach.

In enuresis and spasmodic coughs atropine has proven invaluable to the writer. In a case of valvular disease of the heart, under digitalin, when the breathing became rapid and labored, atropine gave much comfort.

Probably most readers of the CLINIC can duplicate these cases but it is hoped if there are any who do not use atropine, perusal of the above will stimulate them to a closer study of the drug.

A. H. SOUTHWICK.

Limestone, N. Y.

—:o:—

These instructive reports should be tabulated so as to be saved and the evidence accumulated.—ED.

ATROPINE IN HEMORRHAGE

I notice that in recent numbers of CLINICAL MEDICINE you are asking for reports on the use of atropine in hemorrhage. I have used atropine in quite a number of cases of uterine hemorrhage, so will relate my experiences with it.

I first read of the efficacy of atropine in hemorrhages in THE ALKALOIDAL CLINIC about three years ago, but had heard of its use in such a case a couple of years before that. Before I began to study medicine my mother used to be troubled by metrorrhagia, due to a uterine fibroid; a homeopathic physician of my home-town (Ft. Dodge, Ia.) was called, and he gave my mother a solution of atropine, of which she was to take frequent doses, *ad effectum*. The doctor told my mother that the medicine was atropine, and warned her as to

the symptoms that would manifest themselves when the physiologic effect of the drug was reached. He told my mother at the time, I remember, that he had been using atropine in various kinds of hemorrhage for a long time; he said he had never read anything about its use in such cases in any text-book or medical journal, but had run onto it accidentally in his practice.

Well, the atropine did good service in my mother's case; so I sort of tucked "atropine for uterine hemorrhage" away in my think-tank. Then, when I read about it in the CLINIC, it brought it forcibly to my attention.

As I think back over my two short years of practice, I remember two cases in particular in which I would have had a bad time of it without atropine. The first forceps delivery I had after I graduated was in the case of a Norwegian woman, aged 31, a VI-para. In her former labors she had been attended by midwives. She had been in this, her sixth labor, for quite a while before they decided that the child could not be born without the assistance of a physician. I was called at 1 a. m., and went at once, accompanied by my wife, who is a trained nurse. On arriving at the house I found the os uteri fully dilated; the woman was having very strong pains, but the head was not advancing; she was almost worn out by the long, hard labor, so after watching the case for some time and noting that the head made no advancement whatever, I delivered a 13½-pound boy, by the use of forceps, although with considerable difficulty. Then, when the placenta came away, a steady, though small, hemorrhage began. Uterine massage, cold applications to the abdomen, and ergot failed to check the flow in the least; then I gave a full dose of atropine, and in a very short time the hemorrhage ceased entirely.

The other case, I remember particularly well, occurred a month ago. A Russian woman, six weeks pregnant, began to flow at noon, February 14. The flow began with quite a gush of fluid, but she thought it was a regular menstrual period, as she was never very regular about her menstruation. The flow continued, with varying severity, until at the end of thirty hours the woman was pretty well exsanguinated and so weak she could hardly raise her hand. Examination found the fetus lying in the dilated os; this was removed, and the remnants of the secundines brought away by the use of an auger-curette. I gave 1-30 grain atropine sulphate hypodermically, and the hemorrhage ceased inside of ten minutes. Then I gave ergot and styptol, by mouth, and the hemorrhage did not recur.

I have used atropine in a number of other cases of more or less severe uterine hemorrhage, and it has always given satisfactory results. But I believe in giving *full* doses, and that, to me, means not less than 1-30 grain, by hypodermic injection.

W. C. WOLVERTON.

Linton, N. D.

OLD MAIDS—THE OTHER SIDE

The circle of human life is large enough to afford more than one viewpoint in truth. As CLINICAL MEDICINE enjoins closer clinical observation, please look at the old maids' side of the question.

The period between forty and fifty is usually considered trying to most women's nerves. One of that age, being thrown unprotected on the tender mercies of an intelligence office and those who look to it for their household help, might develop peculiarities.

A woman's intuition occasionally is stronger and truer than her natural instincts. In one instance, in my personal knowledge, it held a young girl from what to all seemed a desirable marriage, and when her heart and her home instincts rebelled, she was shown an abyss, above which, in letters of fire that burned into her very soul, was written: "She who makes a bad man the father of her children is little better than a murderess. Whenever we are thrilled by the halo of motherhood, let us remember that it is but the reflection of the glory of fatherhood."

While we teach our daughter the duty as well as the joy and the beauty of motherhood, let us not fail, from infancy on, to guard our man-child from any defilement which could unfit him for pure and worthy fatherhood.

If the nourishing and sustaining of life is holy, is not the giving of life godlike? Man and woman are each but part of one humanity. We cannot afford to antagonize or incriminate each other, but must work together for the betterment of our race. Nor let those dream, whom Heaven has denied the right of parenthood, that there are not possible compensations. Some of our most pleasing fruits and flowers are propagated only by budding and grafting. The analogy is obvious. It presupposes seedling nursery stock. Thus the Christ sees of the travail of his soul and is satisfied.

With Phoebe Cary's "Woman's Conclusions"—

"If I could have known, in the years now gone,
The best that a woman comes to know;
Could have had whatever will make her blessed
Or whatever she thinks will make her so—

"And if this had been, and I stood tonight
By my children lying asleep in their beds,
And could count in my prayers, for a rosary,
The shining row of their golden heads,

"Still I would choose to have my part as it is,
And to let my future come as it will.
I am what I am—and my life for me
Is the best—or it had not been—I hold."

OLIVE E. WORCESTER-SWAN.

Conant, Fla.

SPARTEINE A DIURETIC

Stuart McGuire, *Medical Record*, says, that he had lost many cases from post-operative suppression of urine, more than from all other causes combined, and this despite his almost routine use of chloroform as an anesthetic. Quite by accident he has found a remedy for this in sparteine. This he gives in doses of one to two grains, hypodermatically, repeated every three to six hours. It increases the blood pressure, makes the pulse slower and stronger and acts as a diuretic. The effects are manifest within thirty minutes and last for four to six hours. It should not be delayed till suppression occurs, but employed as a prophylactic, as well as a cure.

W. P. Nicholson confirmed this observation, and reiterated the advice to employ large doses, two grains each.

Our readers will remember that Dr. Pettey strongly urged this use of sparteine in hypodermatic doses of two grains as a better remedy for failing heart than any other.

We have here an indirect confirmation of our action in adding cactin to the hyoscine-morphine anesthetic combination. Neither sparteine nor cactin interfere with the development of anesthesia, but either will prevent the perils from feeble heart and consequent renal failure.

THE GRIPPE AND RHEUMATISM

I would like to give you my prescription for the grippe and actue articular rheumatism, and if you think any of the CLINIC "family" will be benefited by it, you may give it to them.

It was after five years of careful study of various alkaloids in the treatment of the grippe before I had worked out the following formula, which has not failed in the past ten years to give the desired results.

Each dose contains the following granules:

Colchicine, gr. 1-134....1 granule
Bryonin, gr. 1-67.....2 granules
Sparteine sulph., gr. 1-6.2 granules
Digitalin, gr. 1-67.....2 granules
Macrotin, gr. 1-6 .....3 granules

Sig. Take such a dose every three hours.

There is colchicine, bryonin and macrotin for the aching muscular soreness, sparteine and digitalin to strengthen the heart's action and eliminate through the kidneys. Always begin the treatment with a saline cathartic. I can always tell my patients with confidence that before the third dose has been taken their headache will be gone and the muscular soreness will soon after depart.

My treatment of acute articular rheumatism consists of the above grippe formula, with salicylate of sodium, grs. 5, to be

taken every four hours. Also one tablet of calcalith every four hours, but alternately taken, so that each dose of salicylate of sodium and the granules be followed two hours later by one tablet of calcalith.

I will give you a brief history of the first three cases of acute articular rheumatism treated with the above formula.

Case 1. Mr. O., age 65, farmer, Was called 9:30 a. m., April 7. Examination showed both knees swollen to their utmost, resting on pillows and very painful. The patient told me he had been confined to his bed for three days, and expressed his sorrows not only on account of his sufferings but because the next day spring election took place and he could not get out to vote. I prescribed the above grippe formula, with 5 grains of salicylate of sodium and one tablet of calcalith to be taken alternately every two hours, giving medicine sufficient to last thirty hours, and left him, saying I would return next day at 3 p. m. The next morning I was called a long distance into the country and did not get home until 2 p. m. And I never was more surprised in my life than I was on my return to see Mr. O. standing in front of the hotel. He said he had been to the polls and voted and had been waiting for me about two hours. His knees were a little painful and stiff yet, and he thought he needed some medicine.

Case 2. Mrs. C., age 43. Was called at 6 a. m. Said she felt the day before that her knees were getting painful and stiff, but now she could not endure the pain any longer. Examination revealed a badly swollen right knee and the left knee slightly. I prescribed the same medicine as I did for Case 1, promising to call next morning. But the next morning at 7:30 she started to walk to church and stopped at my office to tell me that she did not think it would be necessary for me to call again as she was feeling all right.

Case 3. Mr. H., age 51, farmer. Was called to see him at 10 a. m., Sunday. Had been in bed thirty-six hours, suffering from sciatic rheumatism. I prescribed for him the same as I did for the two preceding cases. I called the next day and my patient was sitting up and feeling quite comfortable. I left him some medicine and the next Wednesday he was in the field plowing.

I could give you a description of quite a number more cases with the same results, but it would be taking up too much of your valuable time. I did not apply fly blisters on any of the above-mentioned cases, as I consider it barbarious and only adding affliction to the afflicted. I discarded the use of capsules over twelve years ago, when it required more than two or three different kinds of granules for each dose, substituting the following plan as more speedy and convenient:

I spread on the table the required number of dispensing papers and on each paper I place about 5 grains of milk-sugar, or salicylate of sodium, or acetanilid, as the case may require, and in the center of the pile I make a depression sufficiently large enough to serve as a receptacle for the required number of granules, which prevents them from rolling away. The papers with their contents can be folded at leisure.

C. STANTON.

Green Bay, Wis.

—:o:—

This is good stuff and we want more of it. Every man with an idea, especially one worked out in practical experience, is invited to send it in. Many a reader of CLINICAL MEDICINE has a hat full of good things which he ought to divide with the rest of us.

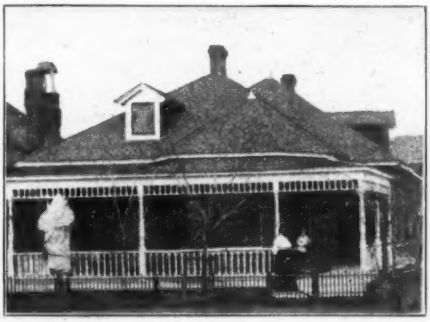
Why is it that so many stick to the beaten path in treating rheumatism and similar conditions? The average man thinks of salicylates and iodides and those only when called upon to treat these conditions. Not but what these are good—sometimes; but one who has learned the uses and applications of colchicine, macrotin, bryonin, calcalith, the "clean-out and clean-up" idea, etc., will be surprised at the things he can do in cases where he used to fail.

Dr. Stanton's idea about giving the granules is a good one. One of our friends who read his letter makes the following additional

suggestion: "If the powders are distributed on squares of tissue paper these may be twisted up like toy torpedoes and, after quickly dipping in water, swallowed like wafers." That suggests the gluten wafers that used to be on the market for taking powders. They were a good thing and useful for this purpose. Are they still sold?—ED.

A SURPRISE FOR THE DOCTOR

On the principle that it is nice to give your wife a pleasant surprise, I am sending you herewith a photograph of my wife, Dr. Alice G. Merchant, our baby boy, Billy, and our residence, corner of Boulevard and Virginia Sts., which you may put in your valuable medical journal if you wish to do so. The doctor is quite a believer in your medicines. I send this without her knowledge or consent.



The Doctor and "Billy"

W. B. MERCHANT.

El Paso, Texas.

—:o:—

Mr. Merchant is a lawyer, his wife a physician. This—with Billy's aid—should be a winning team.—ED.

THE A. M. A. MEETING

The American Medical Association meets this year at Atlantic City, N. J., June 4 to 7. The place itself is a delightful one and there is every prospect of a large and interesting meeting. The CLINIC staff will be on hand and we shall be glad to meet as many of our friends as possible. Can you not arrange to join us at Chicago and go with us? If you are planning to go write us and we will give you information concerning trains, engage sleeping-car berths for you and enjoy your pleasure on the trip. We would like to get up a nice party from the "family." The CLINIC staff will stop at the New Princess Hotel at Atlantic City. This is one of the newest and best of the hostelries in the "city by the sea," and its rates are moderate—a good place to stop! We'll engage rooms for you if you like. Doctor, you had better join us. Let us know your plans as soon as possible.

SOME USEFUL REMEDIES

I wish to bring to the notice of the alkaloidal fraternity two compound tablets, more or less on the shot-gun order. The first combination is: Phenin, gr. 1; anemonin, gr. 1-134; caulophyllin, gr. 1-6; viburnin, gr. 1-6.

I have used this combination for some time, and have had a great many calls for the "cramp tablets." The phenin relieves the nervous congestive headache usually present; anemonin acts as a uterine antispasmodic and increases the flow; caulophyllin steadies the pelvic circulation and also is antispasmodic; while viburnin is essentially a uterine antispasmodic and sedative.

One of these tablets, dissolved in very hot water, taken every fifteen to thirty minutes, rarely fails to give complete relief; and one three or four times a day for two days previous to the menstrual period generally operates against much pain.

The other tablet consists of: Emetine, apomorphine, potassium bichromate, sanguinarine, of each, gr. 1-67.

This tablet has given me perfect satisfaction in acute laryngeal, pharyngeal and bronchitic coughs, both in cases where the membranes are dry, hot, and irritable, with "light" cough and little or no expectoration, and also where the membranes are exuding a tough, tenacious mucus. The two last ingredients act, more especially

in the latter stages, as tonics and stimulants to the weakened membranes, the potassium bichromate being almost specific to relaxed vocal chords and glottis.

The following ointment for burns of any severity is good enough even for the "family":

Ceræ flavæ	oz.	2
Lanolini	oz.	6
Petrolati	oz.	24
Acidi salicylici	grs.	48
Olei, olivæ	oz.	1
Olei gaultheriæ	dr.	1
Acidi carbolici	grs.	96
Bismuthi subnitratis	drs.	4

The wax is to be melted in a water-bath and mixed with the lanolin and petrolatum, and then the salicylic acid thoroughly rubbed in. The oil of gaultheria and olive oil are then mixed together and added slowly, then the carbolic acid is added, and finally the bismuth.

It is astonishing how quickly this relieves the pain of even very severe burns, applied thickly on sterilized gauze, covered with oiled silk, and bandaged.

HUGH JAMESON.

Titusville, Pa.

—:o:—

We hope many of the "family" will "try out" these suggestions in practice. It will not be necessary, however, to have a quantity of the tablets made up. Use the separate granules, giving them together in a gelatin capsule if you so prefer. Acetanilid, the one-grain tablets, will answer the purpose of the phenin—indeed, we suspect that "phenin" is acetanilid under another name. A formula which answers the same purpose as Dr. Jameson's "cramp tablets," and which we *know* to be good, is Buckley's uterine tonic.

We like these practical suggestions. Let us have more of them.—ED.

PENNSYLVANIA RAISES THE REQUIREMENTS FOR ADMISSION

Recognizing the advantages of a broader general education and the growing necessity of the prospective student having in addition special preparation for the study of medicine, the Board of Trustees of the University of Pennsylvania has decided recently to raise the requirements for admission to its medical school. These requirements include two years of general college training and in addition a certain knowledge of biology, chemistry and physics. According to the plan which has been adopted, the standard will be raised gradually, beginning with the academic year 1908-1909 and reaching the maximum 1910-1911.

CAULOPHYLLIN IN RIGID OS

Caulophyllin will dilate the rigid os, but look out for your perineum in primiparæ above twenty-five years of age, for it will tear.

W. C. GENTRY.

Weaubleau, Mo.

THIS IS GOING SOME

You ask for pictures of physicians out of the ordinary. I enclose two taken during a recent outbreak of smallpox in this city. Exhibit "A" shows the health officer, Dr. Hanmer, on the right and myself about

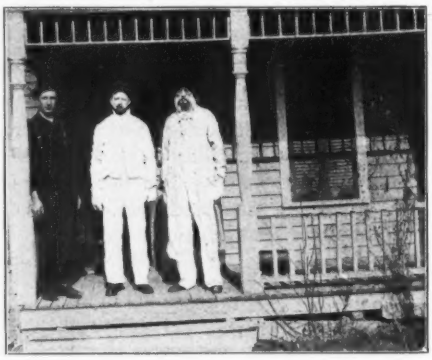


Exhibit "A"

to enter a house where we had seven patients. The suits are the ordinary mason's white frock and jumpers with white canvas gloves. Exhibit "B" shows the Middleton Isolation Hospital, with patients on the porch and your humble servant and outfit in the foreground.

I might add that in addition to the duties of the Board of Health Dr. Hanmer and I

look after the milk supply of the city. In addition to this I am president of the County Medical Club, foreman of a fire company, belong to the Masons and about all the

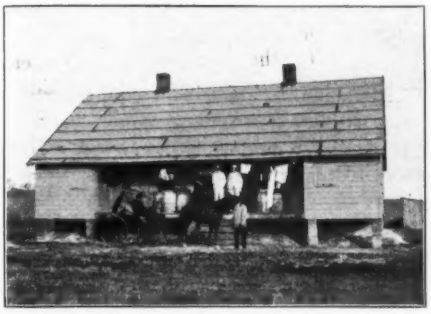


Exhibit "B"

secret societies going, member of the Bench Commission of the Orange County Dog Show, and not least, have a large kennel of Boston terriers, the best of wives, and a boy and girl in the Middleton high school. Next!!

H. J. SHELLEY.

Middleton, N. Y.

—:o:—

Can anybody beat this, either in the picture line or as a sample of concentrated citizenship? But don't let your wife see this, Doctor! Dogs before the wife! The idea! —ED.

WAS IT TYPHOID? CURED ANYHOW

I wonder if you will be at all interested to hear of another case in which the principles which you advocate in the treatment of typhoid fever were applied, with surprising results?

I was called to a case last Friday, March 15, and found the following conditions: Intense headache all over the top and back of the head; subjective vertigo, when the patient closed his eyes; tongue coated heavily in the middle, with a red tip and edges, tremulous; a very foul breath, complete anorexia, constipation, history of black and very foul-smelling stools. Physical examination: Palms of the hands yellow as saffron; abdomen scaphoid, tender, and gurgling in the right iliac region on palpation; twelve or fifteen rose spots on the abdomen and chest, a few on the back; temperature 102.4°F., pulse 94.

Treatment: Calomel and podophyllin, of each 1-6 grain, six doses, followed by saline; intestinal antiseptic (sulphocarbolates) one tablet every two hours. Saturday afternoon there was still headache, foul breath, but not so marked as before; temperature 100°F. I repeated the calomel and podophyllin, and the saline. Sunday noon the temperature was 99.4°F. The intestinal antiseptic was continued. Monday morning the head was better, breath almost normal, stools almost odorless, tongue clearing, pains in the limbs all gone, tenderness in the abdomen all gone; the patient feels better in every way; temperature 97.2°F. Tuesday, the stools were formed and almost normal in color; patient wants to get up.

Friday the 22d, the patient was sitting up, feeling quite well.

This is all right for the patient, but how about my reputation as a diagnostician?

M. ULLIN STONEMAN.

Pittsburg, Pa.

—:o:—

This is a case where the report of a Widal reaction would have been very interesting. If this was typhoid (and it certainly looks very much like it) the case was advanced to the second week when the doctor first saw it, if we can judge by the presence of the rose spots. It is probable that the Widal test would have been positive. But, however that may be, Dr. Stoneman has little need to worry about his reputation. We'll guarantee that it is safe in the hands of *that* patient. People are more interested in being cured than they are in being diagnosed—if they have any sense.—ED.

REMINISCENCES OF AN OLD DOCTOR

The writer of the following is an old man, eight years past the age for asphyxia, as fixed by Dr. Osler; therefore, for anything that does not appear O. K. I must invoke

in my defense the senility act—as promulgated by the good doctor.

When I was a young man, fresh from college, with my "brain loaded with facts, head swollen with theories, but skin-poor in experience," and commenced practising medicine, I had some knowledge of the nature of individual drugs; I had also considerable conceit as to the specific virtues of certain formulas of our professors which I had entered in my note book. Well do I remember how on a certain occasion I had written a prescription for four quarter-grain powders of calomel alone, for a case I considered bilious, and afterwards wrote another for podophyllin alone. In a call I made on the druggist the same day he demanded of me: "Why don't you combine more?"

It was the day of shot-gun prescriptions—"Don't you know that each medicine will work its own specific action independent of the others you may administer at the same time? Why wait so long for the result you are aiming for?" I pondered this over in my mind, and for years the idea influenced my practice. When I subscribed for the first numbers of the old CLINIC, induced thereto by an advertisement in the *Medical World*, my young manhood's faith began to return to me—due to the constant sermonizing of our good brother Abbott.

I returned to my first conception of the use of drugs and began to administer single specific alkaloidal remedies for specific conditions. Once again comes back to my mind the advice of the druggist—long since dead—"Why don't you combine more:" and this the more forcibly, as Brother Abbott continues to put forth for our use such elegant and effective formulas as defervescent compound, intestinal antiseptic, heart tonic, uterine tonic, nervine, anticonstipation, etc.; and last, but not least, the anesthetic—hyoscine-morphine-cactin combination. The clinical use of these admirable formulas has caused me to pause and ask in my mind, "Where am I at? What do I know?" After all, the old Greeks were right with their fables.

There are two sides to the shield. Let me define my present medical faith, sustained by practice, and which I intend to hold to until I can imbibe a better; for I consider a poor faith is better than the *no faith*, or hand-folding, of Brother Osler. I believe it is far better for the physician to compound his own formula, guided by the separate and individual requirements of the particular case he may have on hand. To illustrate: A brother writes in a recent number of CLINICAL MEDICINE of a difficult case of confinement in which he combined a couple of alkaloids—I think hyoscine and caulophyllin—with a uterine tonic, with good results. Now, this is my present attitude. I prescribe single alkaloids when I desire a simple, single, and specific action. When I think my patient's condition will be improved by the combinations of more than one alkaloid at a dose, I thus administer, according to indications. When I find an excellent formula of alkaloids, such as prepared by The Abbott Alkaloidal Company, then I administer such compound or combinations, as indications call for.

When any other preparations or physical, or chemical applications seem to be required in any one particular case, then I act accordingly. I don't know what to dub this faith of mine—unless it be called "faith in the art of medicine," or "When you know you are right go ahead." Every case of confinement I have had lately in which I have acted up to this faith, my patients have expressed themselves to the effect that their last labor was the easiest they have had.

The last case but one was a young woman, who, with her labor with her first child, had convulsions, and the child had to be delivered with forceps while she was unconscious. This, her second child, was born before I reached the house. No convulsions! No complications whatever! The child came feet foremost. I had prepared her for labor by a systematic eliminating treatment before the birth of the child. Excuse this "horn blowing," as it may be instructive. My last case—a week ago—expected to be all right in labor. Hot hip-

bath, caulophyllin and sweet-oil injections, brought the labor to an end in two hours, followed by thanks and a hand-shake from the patient.

A. T. CUZNER.

Gilmore, Fla.

PNEUMONIA, TYPHOID, ETC.: ABORTIVE TREATMENT

In December I wrote an article on the "Alkaloidal Treatment of Pneumonia," for *The Medical World*, and also gave the symptoms and treatment of several cases of typhoid that I had jugulated or aborted in eleven to fourteen days in the same neighborhood, and even in the same families, where the old galenic practicians had kept quite a number in bed from fifty-seven to ninety days; I also gave the symptoms and treatment of four or five cases of pneumonia that I had aborted in from three to five days, but Dr. Taylor so far has failed to publish my communication. While I like *The Medical World* for the noble stand it has taken and the fight it is making for the profession, I fear that Dr. Taylor is yet numbered with those who still hold the "old-fogy" notion that these diseases have to run their course; and if this is true, it is certainly regrettable in a man of his broad-minded views on almost everything else that pertains to our profession, and we ought to try to open his eyes as soon as possible.

Last winter, from January to May, we had a perfect scourge of pneumonia in this bleak plains country. During that time I treated fifty-four cases and saved them all, and some were very old, with heart-action below par, and several of them were babies. I had two cases of delayed resolution and one of heart clot, and I am sure that these were caused by a failure to carry out my instructions.

We are now in another scourge of pneumonia and I have not been so lucky—have lost three cases, two young babies with a complete consolidation of both lungs, complicated with diphtheria when I first saw them, and a lady, 57 years old, that I had been treating for some time for abscess of the liver which was actively discharging pus through the right lung, but which was clearing up as nicely as one could wish, when pneumonia struck her in both lungs and she was too weak to stand it.

To date I have treated thirty-one cases of pneumonia this winter, with only the three losses described above. But I know that most of those who are satisfied to use the old galenics would say that it is not pneumonia that I have been curing or aborting, but just a congestion of the lung from cold, and possibly you may be a little incredulous yourself and might say that a test would have shown an absence of the pneumonia germ. But when we fellows on the skirmish line, out in front, are called to a patient with a temperature up to 105° F., breathing hard, with one or both lungs completely consolidated, unable to cough for pain in the side and coughing up a very little, and sometimes none, of thick, tenacious, brick-dust or prune-juice sputum, (and if a baby, possibly almost completely cyanosed) we have a condition and not a theory confronting us. All the "learned" doctors may just call it any old thing they want to; but we generally feel pretty sure we have a pneumonic condition; whether your little pneumococcus has got in its work or not, we neither have time nor inclination to inquire. We just go after the abnormal symptoms and try to down them with the very best weapons at our command. And we generally succeed—especially with the alkaloids.

Now, Doctor, answer me this question: Does not a congested condition of the lung precede the inflammation? And if we can succeed in relieving this congestion at once, bringing the excess of blood to the extremities, is it not a fact that we minimize the inflammation that necessarily follows and thereby cut short or abort the pneumonic condition?

This is my opinion, and I shall thank you for your criticism; and while I have only written this to you personally, if you wish to publish any part of it, you are at

liberty to do so, and to use my name in any way you wish.

H. T. CLARK.

Fanchon, Tex.

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We sincerely trust that the demand for your services may increase steadily, so that you may be able to give to those who suffer the relief which invariably follows the use of "the right remedy given at the right time in the right way." The results you have so kindly reported in *The Medical World* and elsewhere will, without doubt, make other men think; once they do use their gray matter and act as wisdom suggests, they will practise "positive therapeutics" and meet with success. We thank you sincerely for your missionary work and trust you will, from time to time, give something of your experience to the journals as you have already done.

Quite likely Dr. Taylor will yet use your communication. That the prompt treatment of pathological conditions (not disease names), with active remedies, enables us to abort or control acute affections is now very generally acknowledged and we think Dr. Taylor is glad to have reports of real interest for his journal. His space is limited, so be patient.

As to your question: Of course congestion invariably exists in pneumonia; were there not congestion we could not have inflammation, infiltration, etc. Localized stasis affords a favorable field for the propagation of the diplococcus pneumoniæ, and if we can restore normal circulatory conditions promptly, we positively cut short the pathological processes which constitute "pneumonia."

We know that to insure normal metabolism it is essential to have clean and active *primæ viæ*, active liver, kidneys and skin. These essentials the modern therapeutist secures primarily, and thus working *with* Nature, he finds it practically an easy matter to correct local derangements. Pneumonia is essentially a "local derangement;" so for that matter is typhoid—the profound systemic disturbances are a result of extensive and prolonged localized disorder. We who treat disease along rational lines can afford to laugh at him who says, "It is impossible to abort pneumonia, which is a self-limited disease."—ED.

CERIUM OXALATE A REMEDY FOR WHOOPING-COUGH

I wonder if any of the brethren have ever thought of cerium oxalate as a remedy for whooping-cough. I wish to detail an experience I have had with it; and if it is not this remedy that effected the cure, will some one please tell me *what did*.

Three weeks ago a patient of mine, a school teacher in this city, fell and dislocated her arm at the shoulder. She called me by telephone, and I went to her boarding house to attend to her. After reducing the dislocation, her boarding mistress called my attention to her little six-year-old boy, who had a severe attack of whooping-cough. I went home and prepared a powder that I have found very successful in this distressing complaint, and if any one wants to prove its efficacy, here it is:

Arsenite of copper, 1-200 grain; emetine, 10 granules; atropine 6 granules; granulated sugar, 4 drams.

Mix and triturate *thoroughly*, and give one grain of the powder every hour and one after each paroxysm of coughing.

This remedy soon reduced the cough, but there were severe spells of vomiting. I tried my old stand-by, calcium sulphocarbolate, without effect, save that it changed the acidity of the vomit.

Last Monday—three days ago—I left twelve granules of cerium oxalate, with orders to pulverize and administer two after each attack of vomiting. I called there this morning and found that only six had been required, and the vomiting had ceased and the cough entirely disappeared, and the little chap was out coasting.

I looked up the action of cerium oxalate in Parke, Davis & Co.'s little book on Therapeutics, and Squibb's Materia Medica, both of which I find full of valuable hints, but saw nothing in either as to the value of this drug in whooping or any other cough.

Abbott's list mentions it as "promoting mucous secretions." In this case it has surprised me, and I should like to know if anyone else has employed it in whooping-cough.

In simple justice I will say that the formula given above was suggested by a compound I saw listed in the catalog of the Luyties Pharmacy of St. Louis, from which I have "cribbed" many valuable suggestions. They use cuprum (metal), ipecac, and belladonna, but I find the copper arsenite, emetine, and atropine answer my purpose fully as well, at the same time gratifying my predilection for the alkaloids. The trituration needs to be thorough and complete, and one can work it up while enjoying his post-prandial cigar or pipe.

Somehow we have a habit of stumbling on things. Some time ago I advised an old friend in Missouri to try oenanthe crocata, in minute doses, for a case of epilepsy. He did so, and later wrote me that it helped his patient considerably, but to his surprise it also cured an obstinate cough, that had baffled him for years. Since then I have used this drug successfully for spasmodic cough. It does not make much difference *how* one "gets there," if he *does* "get there." We thus stumble upon many valuable discoveries, which some may attribute to accident. But for myself I recognize "happenings" as something more than mere blind accident or fate.

JAMES R. PHELPS.

Dorchester, Mass.

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In a later letter Dr. Phelps writes us as follows: "In regard to the whooping-cough case, I have to say that the disease has entirely disappeared and the child only coughs once or twice just after lying down in bed. There is no paroxysmal feature about it, however, and I have discontinued all medicine.

"Mentioning the case to a friend today he suggested that the action of the cerium oxalate on the pneumogastric nerve might explain the result, and said that he had noticed a marked effect of this remedy in cases involving that nerve. The fact that this remedy is often very effective in gestatory vomiting gives the color of correctness to my friend's suggestion. But I find nothing in my books giving the slightest hint of any possible effect of cerium oxalate in case of cough. The only hint—and it is a vague one—I find in the Abbott price-list."

This is a very interesting matter, and we shall be glad to have that very curious remedy, cerium oxalate, investigated by members of the "family." By the way, it has recently been shown that chemically pure cerium oxalate is not known on the market. In many specimens the percentage of true salt is exceedingly small; not that it is impossible to obtain, but it costs more than many dealers are willing to obtain.

In our "Text-Book of Alkaloidal Therapeutics," on page 148, you will note that Clark and Morje have found cerium useful in whooping-cough, while Shoemaker suggested its use in other coughs.—ED.

CALCIUM IODIDE IN ULCERS

Dr. G. Arbour Stephens has an interesting article in *The British Medical Journal* concerning the use of the calcium salts in the treatment of ulcers of various kinds. He first tried calcium chloride in the treatment of broken-down and ulcerated chilblains; in one such case, in which the condition was very bad, the odor very offensive and the sore itself almost gangrenous, after two days of treatment with the chloride the ulcer had almost disappeared.

He was then led to try it in chronic ulcers, especially in those of elderly people where the ulcers often have a very offensive smell and resist the ordinary methods of treatment. He gave to two such patients 15 grains three times a day of the calcium chloride and the results were beyond expectation, the odor soon disappearing and healing commencing. Feeling, however, since the coagulation of the blood commenced with the calcium chloride is not maintained beyond a few days, that this salt does not meet all the indications, he substituted cal-

cium iodide for it in these chronic cases. This is a very deliquescent salt, which on exposure to iodine soon gives off iodine. The benefit derived from the calcium iodide was "more than could be expected, for its effect in reducing thick, callous edges into thin, healing ones was little less than miraculous."

Dr. Stephens reports a number of cases in which this salt was used with excellent results, including cases of syphilitic ulcerations which did not yield to potassium iodide. As he says, "such valuable results obtained by using the salts of calcium are very interesting when we consider the large amount of calcium present in the body." The greater advantages of the more stable and much more efficacious preparation, calx iodata, will naturally suggest themselves to our readers.

TREATING SYMPTOMS

A case where it was necessary to meet the physical indications without any other help than that of my senses came under my notice about a year ago. The patient was a barber, aged about forty, and a hard drinker. His brother came to my office in great haste one night and asked me to go to the hotel to see him. He said old Dr. Blank had been attending to him all day, but was "up the stump" and wanted me to help.

I found the man lying on the bed in his hotel room. He was unconscious. His muscles were rigid, skin cold and pale but dry, and he was groaning horribly at times, with severe facial contortions. All I could find out about the case was, that about seven o'clock that morning he had called the porter and asked for a pitcher of water, and when the porter brought it he found him on the bed unconscious. It was thought that he had been on a spree for two or three days previous.

Dr. Blank, believing that his unconsciousness was the result of liquor, had pursued the "expectant plan of treatment," i. e., had done nothing but look in once or twice during the day to see how he was. When he called, about 7 p. m., he found him as above described and got worried, which resulted in my being called in.

The first thing that Dr. Blank said when I came in was, "Doctor, hadn't we better give this poor fellow a dose of morphine at once to relieve his pain." I suggested that we look into matters a little more first, and proceeded to question the hotel people, bringing out the meager information given.

Seeing that I would have no history to work from I looked the man over carefully, and, from the physical signs, decided that glonoin was the remedy indicated, of which, with Dr. Blank's consent, I gave him gr. 1-25 hypodermically.

Hardly was it given, when I was urgently called to another case. I returned in about half an hour, entered the patient's room and was greeted by a cheerful, "Hello, Doc." The patient was not only conscious but was warm and said he felt pretty well, only hungry. I got him a glass of hot milk and in a few minutes after taking it he went to sleep, slept all night, and awoke feeling as well as he ever did.

Moral: If you know the physical action of your drugs you can prescribe in an emergency without knowing anything of the history of the case.

GEORGE B. LAKE.

Wolcottville, Ind.

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Work of this kind marks the resourceful man. What difference does it make whether you give a name to a condition or not; the essential thing is to understand it, and understanding it, to meet it with the proper remedies. That's really practising medicine.—ED.

IS HYDROCHLORIC ACID CONTRAINDICATED IN TYPHOID?

This paper will take the affirmative. It is mighty hard to find any backing for this side of the question, but I have run across two things in the literature which I think have a slight bearing in its favor.

First quotation: "Vegetable acids stimulate the alimentary secretions, causing flatulence and diarrhea." E. C. Hill, *Denver Medical Times*.

Quotation two: "In *American Medicine*, Feb. 24, 1906, Palier describes a bacillus isolated from the stomach, which he has named 'bacillus chlorhydria.' This usually aids digestion, but it may become pathogenic and may be a cause for ulcer. It is especially abundant in hyperchlorhydria."

Now here is a straw from a little closer home. In a short but excellent article in the December number to THE AMERICAN JOURNAL OF CLINICAL MEDICINE, entitled "Alkaloidal Treatment of Typhoid," by J. K. Newman, of Omaha, Nebraska, will be found the following sentence: "My experience with the acid-drink diet has not been satisfactory."

What follows is quoted *verbatim et literatim* from a personal letter, with which Dr. Newman kindly favored me.

"My experiences all point to one thing clearly, in the first three days. Your dictum is absolutely correct: acidulous drinks are to be tabooed. There is strong evidence in favor of this to be found in the fact that feces, urine, perspiration (when found), nasal and buccal secretions (vaginal in females) are, all of them, hyperacid."

Further on the doctor states: 'The longest and most tiresome case was one where I followed strictly the acid-fruit diet from the start. No perforation, or hemorrhage, but lingering, and wasting, until I was compelled to do otherwise; and it was a wise move, too, and none too soon."

Now, here are a few of, I'm afraid, rather farfetched deductions of my own.

I have read somewhere that Peyer's patches have been called the cecal tonsils. Nobody hankers after anything sour who has tonsillitis. Again I read that free hydrochloric acid is credited with causing the opening of the pylorus and allowing more or less of the discharge of the stomach contents into the duodenum.

Well, you'll say, that's all right in a normal state of health. Granted, but in typhoid? No. I don't believe that the acid becomes neutralized. I believe it traverses that whole extent of inflamed intestine in from twenty to thirty minutes and sets every inflamed gland on fire as it goes along.

Now for those cases. First, we'll have a little sketch of them *en bloc*, as it were:

All the cases, ten in number, occurred in two families. They were evenly divided, five in each family. In one family two died before coming under my charge. The remaining three recovered. In the second family I lost one, with four recoveries. Both families were in humble circumstances, both were large families, seven in one and nine in the other. Both were in confined, ramshackle quarters. Paid help was out of the question; fear of the disease (which had become epidemic in the neighborhood) kept those away who would have rendered gratuitous aid. And there we were.

I should have liked for each and every one of these patients to have had at least one sponge-bath at 8 p. m. every twenty-four hours. Case one is the only one that got it. I could have got along with a million or two less flies. I should have liked to have been able to enforce my orders regarding the burial of the dejecta. To put it short, I should have liked to have practised all those hygienic methods that go with the orthodox modern technic of the treatment of typhoid. Don't think I'm trying to magnify my individual difficulties; there are plenty of country doctors who can duplicate the order. I'm not the only man, by a long chalk, that's had to fight typhoid simply and solely with the medicine case.

To save repetition, I will give here what you might call the basic treatment of the eight cases.

The initial purge was calomel 1 grain, podophyllin 1 grain, in divided doses, a sixth of a granule of each being taken once every hour, from 3 p. m. to 8 p. m., followed immediately on arising the next morning with saline laxative (Abbott), one teaspoonful in two thirds of a glass of

hot water. The temperature I kept within reasonable limits with defervescent compound, spacing my dosage at longer or shorter intervals as the exascerbations went down or up. Sufficient of the intestinal antiseptic (Abbott) was used to control the fetor of the stools. Additional drugs used systematically will be noted in their respective case reports. To save space, these reports will deal with drugs, treatment, diet, and, above all, the appearance of the stools, and such individual idiosyncracies as I deem worthy of note.

Case 1. Male, about eleven years; duration of fever, twenty-two days; highest temperature, 105.5° F. Was delirious larger part of third week. Controlled insomnia and delirium with a bedtime dose of from one to two chlorodyne granules, and generally one granule was sufficient. Relieved flatulence and pain in the bowels (which he complained of but twice) with three doses of two granules each of anodyne for infants (Waugh) given fifteen minutes apart. Average number of stools daily, two, the major part of which were formed. Diet, crackers and milk, chicken, squirrel or beef broth. Appetite good after third day. Stools were each and every one carefully examined microscopically for sloughs or blood; not a sign of either from start to finish. Made good recovery; without sequelæ.

Case 2. Girl, age seven years—sister to case 1. Treatment exactly similar, only, of course, giving the defervescent compound by Shaller's rule, to suit the age. This is the one I lost. She had been subject since her third year to annual attacks of bilateral purulent mastoiditis. One of these supervening on the fever was too much.

Case 3. Girl, age fourteen years. I want to be excused if I'm a little prolix on case 3. Everybody said I'd lose her. I had that indefinable feeling that I wouldn't. I was uneasy, good and plenty, about all the rest, but never about Case 3, and yet she got more different drugs (for which she invariably favored me with the indicated symptoms) than all the rest combined. To be plain, I quit treating typhoid and went to meeting symptoms with what I sincerely hope were the indicated remedies. To further excuse myself, take a glance at the situation. We are now in the thick of the battle—five cases, four bedfast, and Case 1 just able to sit up; and just the mother to take care of them. Please note that in spite of all the drugging I had, positively, no sloughs or hemorrhages from the bowels. All these sick folk, mind you, were in one room. Case 3 went "dippy" (delirious) almost from the start and stayed wild almost plumb up to the finish. I never heard such unearthly shrieks as that child would furnish you with at about 2 a. m. First two long arms shot the covers off, then with a blood-curdling yell she'd rise to a sitting position with the suddenness of a jack-in-the-box. It was uncanny.

She was a good-looking, black-haired, large-eyed girl. She always made me feel as though I was giving medicine to a Banshee. Who knows? Maybe I was. For these spells I just had to use the chlorodyne granule. There's a granule that doesn't get the talking-up it deserves. Once, and once only, did I have to use three of them in one night, but from one to two of them in the small hours was the regular thing as near as I can recollect, nigh unto three weeks. I didn't want to do it; but if I hadn't, she'd sure had my other three shoving clouds. Of course, they locked her bowels, and for this I used anticonstipation (Waugh), cascara or calomel tablets—sometimes the one, sometimes the other. Then she took to vomiting every time she ate anything. I got ahead of that with panzinoid, a digestive powder put up, by the Fitchmul people. Then she took cold, and developed a cough that would have been a credit to a section hand. I fought this with calcidin and a tonsillitis tablet I got from the Mulford bunch.

Then she did, what I'd felt in my bones she was going to do all along—she got well. She didn't make any halfway matter of that either; she got good and well.

Note: From each and all of these different drugs I got results, the expected

effect. It looks to me as though my absorbents were on deck, at least.

Case 4. Girl, age sixteen. In spite of all I would do, this one got well, that is, well for her. She had been steadily under medical care for three years for a weak heart. Talk about the devil and the deep sea, with you in the middle! Think of bucking that with circulatory depressants. I wouldn't go through it again for a pair of new dash lamps.

Cases 5, 6, 7 and 8 I'll bunch, because this is getting too long. They were all children, ranging in age from three and one-half to eight years; two boys and two girls. They came through all right, and if they got anything acidulous, I did not know it. The only thing out of the common in these last four was an epileptic taint on the father's side, he having had several seizures about ten years prior to his death, and so, I am informed, developed marked symptoms through his illness. I noted no trace in the girls, but the two boys had spasms which, whether rightly or not, I do not know, I laid to heredity.

Now, to sum up. If I had to do it over again, I would do the same way, with the single exception that I should allow buttermilk, simply because it is recommended by acknowledged authorities.

L. THOMPSON CLASON.

Urbana, Ohio, R. F. D. No. 7.

AMERICAN MEDICAL EDITORS' ASSOCIATION

The 38th annual meeting of this association will be held at Atlantic City on Saturday, June 1, and Monday, June 3, with headquarters at the Marlborough-Blenheim Hotel. This active Association now numbers nearly 150 members with many applications in hand for action at the coming meeting. An interesting program has been prepared and the following are among the papers to be presented:

President's address, "The Future of Medical Journalism," by Jas. Evelyn Pilcher, M. D., Ph. D., LL. D.; "Shortcomings of Physiology, the Chief Obstacle to Medical Progress, the Need of Editorial Intervention in such Questions," by C. E. DeM. Sajous, M. D., Phila., Pa.; "How Can We Make Medical Journalism Better?" by W. C. Abbott, M. D., Chicago, Ills.; "A Word or Two From an Ex-Journalist," by Samuel W. Kelley, M. D., Cleveland, O.; "The First Medical Journals," by O. F. Ball, M. D., St. Louis, Mo.; "The Psychology of Medical Journals," from the Reader's Standpoint, by T. D. Crothers, M. D., Hartford, Ct.; "The American Medical Editor's Association, Past, Present and Future," by Joseph MacDonald, Jr., M. D., N. Y.; "Journalistic Suggestions From a Semi-Disinterested Standpoint," by Wm. Porter, M. D., St. Louis, Mo.; "The Situation," by C. F. Taylor, M. D., Phila, Pa.; "Some Aspects on Medical Journalism," by W. F. Waugh, M. D., Chicago, Ills.; "The Neglect of American Mineral Springs and Climatic Resorts by Our Medical Press," by G. T. Palmer, M. D., Springfield, Ills.; "Further Reflections on the Official vs. Independent Medical Journals: One Year's History," by Wm. J. Robinson, M. D., N. Y. City.

On account of the large membership of this Association, it is anticipated that the coming meeting will exceed any prior meeting in point of attendence.

The Annual Editors' Banquet, which is always the social event of the week, will be held at the Marlborough-Blenheim Hotel on Monday evening, June 3.

DR. BIRCHMORE'S ARTICLE, AND OTHER THINGS IN THE JUNE NUMBER

We owe an apology to the readers of CLINICAL MEDICINE for again interrupting the course of Dr. Birchmore's splendid series. But don't despair! It will be continued next month. If you are not reading these articles you are making a big mistake. Personally we think it one of the finest presentations of the subject which has appeared in the English language. Look out for the June article.

And, by the way, the June number is going to be a "peach." There is a splendid

epoch-making article on "Acid Intoxication" by Dr. Eugene S. Talbot, Secretary of the Section of Stomatology of the American Medical Association; one on "Vasomotor Conditions During Shock" by Dr. Waugh; an inspiring contribution "Concerning the Doctor Himself" by Dr. Maynard A. Harlan, Professor of Surgery in the Medical Department of the Indiana State University; one on "The Vaginal Toilet," by Dr. George H. Candler; one on "Alcohol and Tuberculosis," by a German authority, Dr. Holischer; and one on "Calcium Sulphide," by Dr. L. A. Merriam, of Omaha.

Other good things, too numerous to mention. Get this number and read it through. It will set your blood stirring.

HAVE YOU A PRIVATE HOSPITAL—OR DO YOU WANT ONE?

Many of the readers of CLINICAL MEDICINE have established private hospitals or sanitariums of their own. The tendency is in that direction—and it is good! For the good of the "family" we ask reports of experience from those who have established such hospitals. Write us a short article—each of you. Give us practical suggestions concerning planning, construction and management. Tell us how you manage the medical end, especially; for this should open up new fields for the alkaloidal practician, in the assurance that under trained assistance the "small dose, frequently repeated," will be given as the doctor wants. Send us pictures of your hospital and any features about it that will bear illustrating. We want to get up a little symposium that shall have some "meat" in it.

TREATMENT OF HERNIA BY INJECTION

We have many inquiries from our readers regarding the treatment of hernia by injection and have reason to believe that a large portion of the profession is interested in this profitable specialty.

In the April issue of *Albright's Office Practitioner*, published by J. D. Albright, M. D., Philadelphia, there appear two splendid articles on this subject, one by Dr. Souder of Philadelphia, and the other by Dr. McDonald of Illinois.

We suggest that whoever is interested in this subject send ten cents to Dr. Albright for this issue. It is worth ten dollars to any physician interested in this work.

PRIZE ESSAY

The Mississippi Valley Medical Association offers a prize of $100 for the best essay on some medical or surgical composition, the competition being limited to members in good standing of this association. The award will be made by a committee consisting of Drs. Hugh T. Patrick of Chicago, A. H. Cordier of Kansas City and Chas. H. Hughes of St. Louis. We hope that one of the readers of CLINICAL MEDICINE may be the fortunate man. Write to the secretary of the association, Dr. Henry Enos Tuley, 111 W. Kentucky St., Louisville, Ky., and he will supply you with full data concerning the conditions under which this reward will be made.

DEATH OF MR. THEODORE E. BUHL

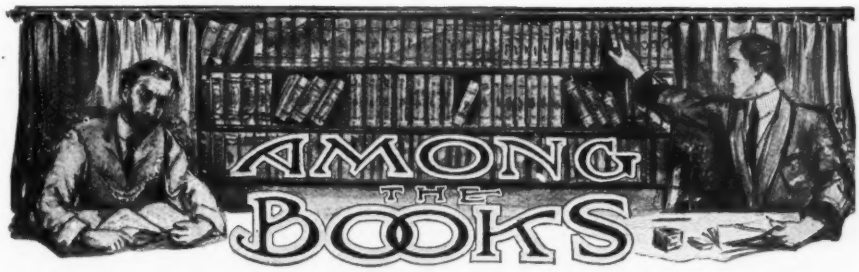
Just as we are going to press we learn of the death of Mr. Theodore D. Buhl, president of the firm of Parke, Davis & Co. Mr. Buhl has for more than ten years been connected with this great house, and throughout has so conducted the arduous duties devolving upon him as to win the respect and esteem of all his colleagues and employees. We extend our sincere sympathies to all who are bereaved by his loss.

CANNOT SPEAK TOO HIGHLY

In regard to your surgical and obstetrical anesthesia, I cannot speak too well, for it has done all I wanted it to do. Some of these days, when I have the time, I shall give an account of a labor-case in which I used it. It did the work all right.

B. T. LASTER.

Jacks Creek, Tenn.



INTERNATIONAL CLINICS

International Clinics, Quarterly, Vol. III and Vol. IV, Sixteenth Series.

There is a wealth of availably useful articles in these volumes gathered from eminent men who practise and teach, and theorize little. We can consult them and follow their advice, or also not, but we will know why, and they, like good books, will not be offended with us. Our thousands of readers, all over our vast country, have not the time to go to hear lectures on the science and art of our ever progressing profession, and if they do they are not likely to come upon better or even such excellent articles as these International Clinics afford them for only $2.00 a volume.

Here are a few pithy, stimulating thoughts, at least they stimulated us:

"In the complex of chemical functions termed life, man is ever on the verge of disease, and the dangers that beset him from without are not so great as the perils which lurk within his own system."

"Autointoxication creates, by depraving nutrition, the *morbid opportunity* essential for the pathogenic action of the nearly omnipresent germs, which poison the body by means of their toxins."

And here is a timely warning, especially for dwellers of our cities and towns: "Of all protein foods the most dangerous is the cold-storage poultry, which is sometimes kept for a year or more in the undrawn state and immersed in water before selling to render plump and coincidently spread the ptomaines from the gut throughout the body of the fowl.

"Deficient urea excretion is a more reliable danger signal than the presence and amounts of albumin.

"I have found phenolsulphonates (sulphocarbolates) most efficacious and it has long been my custom to give the sodium salt in full doses in acute alimentary poisoning and in all chronic diseases accompanied by foul stools and indicanuria" (Prof. Hill of Denver). The short article on rhinology as related to respiratory and other diseases I would call special attention to.

Vol. IV, sixteenth series, contains rare and valuable articles, of which we have time and space to call attention to but one, as a specimen of the excellencies of the rest. The article is on "Recent Additions to our Knowledge of the Physiologic Influence of Lower Barometric Pressure," by Prof. Henry Sewall of Denver, just the man in the right place to write such an article. In our fight with tuberculosis our mountain lands may become an indiscriminate refuge place for those affected by it in any and every stage of it and sent there by ill-informed professionals or laymen—especially the women. This article is therefore eminently an informing one.

WINDSOR'S "INDIAN TOXICOLOGY"

Indian Toxicology, by F. N. Windsor, Captain I. M. S., M. B., etc. Thacker, Spink & Co., Calcutta, India, 1906. Price three shillings.

Poisons are not all known to the scientific men of civilization, and in the dark corners of the earth, and in the dark minds, some

powerful ones are still kept in secret. This well-written little book mentions a few not usually known, and those known are excellently treated of by the author.

MERCK'S "ANNUAL REPORTS"

Merck's Reports. Complete Series, Vol. XIX, 1905, Darmstadt, May, 1906. We are not informed of the price of this annual, and we even suppose that it is given away gratis. Anyway, it is the most accurate and reliable report on the articles it treats of. Its table of contents will show its usefulness: Preparations, Supplement, Bibliographical Index, Index of Authors, General Index, Index of Diseases, Symptoms and Indications for Treatment, Approximate prices of the Medicaments.

STENHOUSE AND FERGUSON'S "PATHOLOGY"

Pathology, by Drs. J. Stenhouse and J. Ferguson, is one of Lea Brothers & Co.'s Medical Epitome Series. It is amply illustrated and will well meet the object of medical examinations.

ILLINOIS BLUE BOOK

Blue Book of the State of Illinois, compiled and published by James A. Rose, Springfield, Ill., 1905.

The volume is issued in 1906, and its nearly seven hundred pages contain a vast amount of information about the state and its relations to the United States. We consider it a patriotic treasure. But you must send 25 cents to the secretary to get it.

BOOTH'S "OSTEOPATHY"

History of Osteopathy, and Twentieth Century Medical Practice (i. e. of *Osteopathy*, for the new-old, and the old and never-aged medical schools have not yet given up the ghost). By E. R. Booth, Ph. D., D. O., Cincinnati, Press of Jennings and Graham.

There is nothing of truth nor of error going on in the history of medicine that can fail to be instructive to the studious physician. We learn from our friends, but we also do so from our enemies, for these latter tell us our faults mercilessly, and there is quite a lot among us of self-sufficient proudly-callous physicians and professors in high places who need a very strong epispastic to draw a painful blister for the good of their souls. In this respect osteopathy has done a great deal of good to the profession, for which all of us ought to be thankful. We are.

"WHAT A YOUNG GIRL OUGHT TO KNOW"

What a Young Girl Ought to Know, by Mrs. Mary Wood-Allen, M. D. This is a newly revised edition of the Self and Sex Series by the Rev. Dr. Sylvanus Stall. Published by the Vir Publishing Company Philadelphia. $1.00 net.

Space is sparingly alloted to this department, concentration is imperative, and the reader's thoughtful expansion hoped for. This worthy book must be done justice; do not give the book to your girl to read, rather read it to her, and do not lose the chance of stealing a look on the impression you are making. There are things in the training of the young which cannot be done by proxy of either living men or dead books. It is difficult to present the subject of reproduction to the young without offence but this author does it and we owe her thanks. The book impressed us as the outcome of an unborrowing soul wishing to do good from her own resources. Her words are beautiful in their simplicity, truthful in delineation, charming often in the rippling flow, touching in affectionateness, sacred in their repression of even the mere suggestion of shame and sin.

But great men and women, too, make great mistakes in adhering to prejudices, and consciously or not are unwilling to submit their judgment to that of a man, like Saint Paul, who speaks in severe terms against the notions of "abstaining from meats which God hath created to be re-

ceived with thanksgiving . . . . for every creature of God is good, and nothing to be refused if it be received with thanksgiving," (I Tim. 4:3) and of course in true temperance. One might rightly expect from a mind like that of Dr. Mary Wood-Allen to appreciate fully the simple axiom that abuse is no argument against proper use, but great minds make great mistakes, and recognizing this as a human failing, we will not discount her intemperate tirade against all alcoholics, tea, coffee, and tobacco, as against the other parts of the book which are true, and must prove helpful in the training of our daughters.

THORINGTON'S "RETINOSCOPY"

Retinoscopy (or Shadow Test). By James Thorington, A. M., M. D. Fifth revised and enlarged edition, with fifty plain and colored illustrations. Philadelphia, P. Blakiston's Son & Co., 1907. $1.00.

A book that appeals to those who endeavor to master their specialty further than through mere trade usefulness. The book is generally accepted in this sense.

LEA BROTHERS' "VISITING LIST"

The Practitioner's Visiting-List, 1907, thirty patients per week. Philadelphia and New York, Lea Brothers & Co. $1.25.

The volume contains the data which practicians usually need for reference. It is bound in substantial red leather with tuck. The most attractive visiting list we have seen this year.

MICHIGAN STATE BOARD OF HEALTH

We gratefuliy acknowledge the receipt of the Thirty-second Annual Report of the Secretary of the State Board of Health of the State of Michigan for the fiscal year ending June 30, 1904.

On the title page there is the seal of the State Board of Health, representing an arched gateway with the inscriptions: Public Health, Hydraulics, Pneumatics, Chemistry, Meteorology, Vital Statistics, Etiology, Pathology, Physiology, Anatomy, Truth.—Query: Does the Michigan Board of Health consider Therapeutics as a defunct subject? Or is it a "*Noli me Tangere*" for it. The report, however, is highly interesting and valuable.

COLEMAN'S "MATERIA MEDICA"

A Syllabus of Materia Medica. Compiled by Prof. W. Coleman of Cornell University Medical College, third edition, New York, Wm. Wood & Co., 1906. $1.00.

The plan of this little volume is to aid the student's memory, which is the most taxed in this study.

SAUNDERS' CATALOGUE

W. B. Saunders Company, of Philadelphia and London, have just issued a revision of their handsome illustrated catalogue of medical, surgical and scientific publications. The authors listed are all men of recognized eminence in every branch and specialty of medical science. The catalogue is well worth having, and we understand a copy will be sent free upon request.

BOUCHARD'S "AUTOINTOXICATION"

Lectures on Autointoxication in Disease, or Self-poisoning of the Individual. By Ch. Bouchard, Professor of Pathology and Therapeutics; Member of the Academy of Medicine and Physician to the Hospitals, Paris. Translated, with a preface and new chapters added, by Thomas Oliver, M. A., M. D., F. R. C. P., Professor of Physiology, University of Durham; Physician to the Royal Infirmary, New Castle-upon-Tyne; formerly Examiner in Medicine, Royal College of Physicians, London. Second Revised Edition. Crown Octavo, 342 pages, Extra Cloth. Price, $2.00, net. F. A. Davis Company, publishers, 1914-16 Cherry street, Philadelphia.

We look on Bouchard's work as a classic. In his first edition he startled the medical

world by presenting a new basis from which to judge of a vast part of the phenomena presented by patients. This view has been sharply attacked and in the present volume the author shows the influence of this adverse attitude of his colleagues. In several places he is less confident, less disposed to maintain the advanced ground he had occupied. Curiously enough, the influence of his first work is now being manifested, and while Bouchard feels the influence of the opposition, his own side has been so powerfully seconded by clinical observation that the opposition has almost evaporated. The doctrines of autotoxæmia, fecal absorption, intestinal antisepsis and elimination have been found to "fit" so marvelously, they afford so ready and sure a means of appreciating morbid conditions and fitting remedies thereto, that they have become little short of universal in acceptance. In this work Bouchard's book will always remain a landmark. Not that he was the only one or even the first to maintain these doctrines, but he supplied the laboratory investigations that confirmed the views already deduced from clinical studies. Each work is a necessity to establish the other. This book is one no physician can well afford to do without.

PROGRESSIVE MEDICINE

Vol. VIII, No. 4, December 1, 1906, edited by Drs. H. A. Hare and H. R. M. Landis. Publishers, Lea Bros. & Co., Philadelphia and New York; $5 per annum.

This last quarterly of the past year is exceedingly valuable and helpful. The first and largest article, by Dr. J. Dutton Steele, 120 pages, on the diseases of the digestive tract and allied organs, gives a very extensive review of the latest achievements in the knowledge of this most intricate set of organs, which are well designated of old as the *primæ viæ*, for they are the first ways of our life. We never knew enough of them in the treatment of disease generally and of these organs in particular. This article by Dr. Steele will both enchant and disenchant by the facts, not mere theories, which he brings to light. Every physician should know these "first ways of life" when called upon to treat the human sick organism, and this article cannot be too much appreciated for the help it gives in this direction.

The other articles, viz., on diseases of the genitourinary organs, fractures, dislocations, amputations and surgery of the extremities, and therapeutic referendum, are all excellent and informing, and up to date. Again we repeat what we have often said, that the small price of this quarterly is a marvel compared with what it gives.

AMERICAN PRACTICE OF SURGERY

Bryant and Buck's American Practice of Surgery, Vol. 2, Publishers, Wm. Wood & Co., New York, $7.00.

The reader is requested to refer to our review of the first volume in the CLINICAL MEDICINE for January, this year, p. 115. There is nothing to retract from the laudation there given, as applied to this volume. It contains 764 pages, and 14 pages of index.

We think our readers again best served by giving them the table of contents of this volume, too:

Part VI. Diseases belonging in part to medicine and to surgery, and those observed in the United States, its dependencies, and in Canada: Leprosy, plague, glanders, anthrax, actinomycosis, mycetoma, rhinopharyngitis mutilans, scurvy; their diagnosis and surgical treatment.

Part VII. Tuberculosis and syphilis, and their surgery.

Part VIII. Surgical diseases in various parts of the body; abscesses, ulcers, gangrene, surgical skin diseases, wounds and diseases of muscles, tendons, bursæ, connective tissue, nerves, lymph-nodes and vessels.

Part IX. Results of heat and cold, electric currents, lightning, and frost-bite.

Part X. Wounds, simple, complicated, and gun-shot. Wound infection of soft parts by cutting and piercing instruments.

A valuable feature of this volume is its extensive reference to the diseases met with in the present dependencies of our country.

CONDENSED · QUERIES · ANSWERED

PLEASE NOTE

While the editors make replies to these queries as they are able, they are very far from wishing to monopolize the stage and would be pleased to hear from any reader who can furnish further and better information. Moreover, we would urge those seeking advice to report the results, whether good or bad. In all cases please give the number of the query when writing anything concerning it. Positively no attention paid to anonymous letters.

ANSWERS TO QUERIES

ANSWER TO QUERY 5209.—The following probably will be of benefit to the doctor. It is very important for the cure of a chronic specific anterior urethritis to restore the urethra to its normal size and heal local inflammatory areas. If the meatus is smaller than the urethra, it is well to do a meatotomy, so that the meatus will be of the same size as the urethral canal, and this cut should be prevented from healing by passing a sound. Often a discharge is kept up by too much treatment. In that case stop all treatment for a short time. Some of the following treatments will generally relieve the condition in from one to six weeks. Two or three times a week the patient is to urinate and the canal to be irrigated with boiled water. A full-sized sound is passed into the bladder and immediately withdrawn and followed with instillations of nitrate of silver, beginning with ten drops of a one-percent solution and increasing to 5 per cent. If the urine is acid, render it alkaline with the acetate and citrate of potassium, well diluted. It is well to use the balsams internally, sandalwood oil, oleoresin of copaiba, salol, oil of cinnamon, and pancreatin in capsule. Large quantities of plain or carbonated water. Keep the bowels well regulated and restrict exercise. Irrigations with potassium permanganate, 1-4,000 to 1-500, silver nitrate, zinc sulphate, or deep instillations of an oily solution, composed of silver nitrate, gr. 10, balsam of Peru, gr. 10, berberine sulphate, gr. 20, and castor oil, q. s. ad oz. 1. To be used once daily. By the use of sounds and instillations of silver nitrate two or three times a week relief will be obtained in from one to six weeks. The clap shreds should be examined for the diplococcus, and most likely the gonococcus will be found. A man must not marry until six months to one year has elapsed after all discharge or gluing of the meatus ceases and then only after thorough treatment.

M. S.

Frankfort, Kans.

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ANSWER TO QUERY 5215.—I would like to say that if the doctor will institute hygienic living, and treat his rosacea case with x-rays, treating every day or every other day, almost to the "burning" point, he will have a much shorter road to travel, and his patient will be pleased. I will add that it is necessary to protect the eyes and all unaffected portions of the face; also, do not fail to protect your patient with a metal apron lest you produce sterility.

A. T. BOTTS.

Warrensburg, Ill.

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ANSWER TO QUERY 5221.—In looking over a sample copy of your journal I notic J. E. E., Mo., asks, "Is a negro immune to appendicitis?" I should say not. As at-

tending surgeon to Victoria Public Hospital I operated on a negro for appendicitis three or four years ago. Typical case.

C. J. McNALLY.

Fredericton, N. B.

We have a long communication on this subject by Dr. Fred Fletcher of Columbus, Ohio, which will appear in a later number, in another department.—ED.

QUERIES

QUERY 5223.—"The Horse Before the Cart—Solanine." I have some of your solanine granules, gr. 1-67, and would like to ask what quantity of the solid extract of horsenettle, root or berry, is represented in 1-67 grain of solanine? With this knowledge I shall have a more definite basis upon which to work.

J. W. W., New York.

You should think the other way around when dealing with the active principles, i. e. about how much active principle should a certain quantity of the solid extract contain? Whether it does contain it or not is an entirely different matter. Five to ten grains of a good fresh specimen of horsenettle root would probably give us from *one* to *two* grains of solid extract (You see the vast difference in the specimen.) and one to two grains of extract *ought* to contain at least gr. 1-67 of solanine, but as one grain might equal that amount in some preparations, whereas it would take two of another solid extract, you see how impossible it is to get precise dosage with extracts. Drop all the ideas you have of comparing the galenics with the active principles and "think in alkaloids," realizing that the alkaloidal granule, as offered, represents "the smallest known-to-be-effective dose" for an adult. The exhibition of such dose at frequent intervals to effect, remedial or physiological, enables us to practise *positive therapeutics*.—ED.

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QUERY 5224.—"A Stubborn Case of Barber's Itch." Carbenzol alone doesn't seem to cure an aggravated case of barber's itch. What further have you to suggest?

F. W. J., Indiana.

We are rather surprised to hear that you have not had good results with carbenzol in this case of barber's itch because so many physicians have reported almost phenomenal success. We have just had a case of tinea barbæ which yielded very promptly to carbenzol. It is sometimes necessary to pull out the hairs from each pustule—the center hair, that is, around which the pus gathers. If this is not done the case may prove obstinate. Internally give calcium sulphide to saturation; 1-6 of a grain every hour or two until all the secretions smell strongly of sulphureted hydrogen. Citrine ointment may be used in serious cases, one part of citrine ointment to three of simple cerate, gradually increasing the strength to one to two and alternate this formula and the carbenzol every twenty-four hours. The condition present indicates the remedy to a very great extent. Sometimes ointments will do the best work and other times powders or lotions will prove superior. Resorcin one dram, glycerin two fluid drams, cold cream q. s., to make two ounces, may be applied several times daily in chronic cases, with good results; but, Doctor, the first treatment we suggested, given with the proper internal treatment and free elimination, will certainly cure your patient.—ED.

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QUERY 5225—"Varicose Veins of Lower Limbs with Ulcers." Mr. B., aged 37, has had varicosities of lower extremities and lower third of body, showing principally on upper parts of limbs; also leg-ulcers. Part of time two or three, part of time only one, and sometimes healed entirely or very nearly so. He is a schoolteacher, and when confined to his room for some months. the ulcers get worse. It is when he travels by land that they disappear, when he is in the open air and having exercise but is not on his feet much. Has been treated by quite a number of different physicians

and with home remedies, but nothing has done much good, except traveling. I have recommended elastic bandage, but am not able to say to what extent he can expect benefit and what to expect from a bandage of that extent and of that nature. I should like to have your advice as to what extent the bandage could be used; whether up the whole of the limbs and on up the lower third of body, and could such a bandage be made that would do any good; or should the bandage come up both limbs to the body only, in the form of stockings? I would like to know what such a bandage as would be necessary for this ought to cost. What can be expected from an elastic bandage in such a case and what is the best treatment for the ulcers?

A. C. B., Oklahoma.

The best treatment for leg-ulcers is as follows: Cleanse thoroughly with H_2O_2; cut away or curet any necrotic tissue on sloughing floor; then apply pure turpentine (Merck) with a camelshair brush; snugly fit into the ulcer a piece of gauze saturated with turpentine, cover with another pad of gauze, a handful of cotton and a snug bandage. Repeat this dressing daily until granulation is established and the edges close in. Now place a few pin-point grafts upon the surface, after cleansing with a boric-acid or normal salt solution (taking these pin-point grafts from the thigh or the arm of the patient). After placing them, cover with perforated rubber tissue and flood the area with bovinine, apply one thickness of lint, then another piece of oiled silk (unperforated); cotton and bandage in the usual manner. Renew bovinine and lint twice daily (not removing the *perforated* tissue, unless signs of hyper-secretion or pus are evident) until the second day and then, with great care, catch one corner of it with a pair of forceps and float it up with warm boric-acid solution thrown under it with a dropper. Healing will soon take place. Varicosities of the lower extremities are invariably benefited by well-fitting elastic bandages or elastic stocking. These can be obtained from the Empire Bandage Company or from any good surgical appliance house. The support must be worn, however, a long time and the limbs should be elevated before the bandage or stocking is placed. Of course, varicosities may be cured by surgical procedures (tying of the saphena, for instance); but we cannot prescribe for this patient because we do not know just where the trouble originates. Full doses of hamamelin and æsculin with ergotin and cornin are frequently of benefit. The bowels must be kept open and the liver active. It is not at all difficult to secure elastic compression of the lower part of the body and an elastic garment similar to a pair of bathing-trunks can be applied together with a pair of full-length elastic stockings. You will find the advertisement of the Empire Elastic Manufacturing Company, Lockport, New York, in the JOURNAL. The "Master" elastic stocking made by a New York house has always given perfect satisfaction.—ED.

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QUERY 5226—"Anal Stricture and Fistula." Male, forty years old, married, alcoholic to quite a degree, until four years ago. An abscess developed one-half inch from anal margin about two years ago. Fistula followed. Was operated on about one year ago by a, presumably, incompetent, and patient says the doctor cauterized the gut inside with silver nitrate. Fistula did not heal. Patient went to some doctor in Kansas City, and was treated without success, except to help, possibly, the fistulæ; but rectum is now contracted—so small that only the little finger can be introduced, owing to scar-tissue, as patient says, from the silver nitrate the doctor used. Patient has some purulent discharge from rectum all the while, and while I have made no examination, it is my belief that the fistula is not healed, as there is continual suffering. There may be a tubercular condition, and I fear there is. Now, do you think that thiosinamin would be of any use in the treatment of the stricture, that the doctors (?) in Kansas City could not cure by dilating. If so, how would I best use it; and if not, could you offer a suggestion as to the treatment of the case from this meager descrip-

tion. The patient is compelled to keep bowels in a liquid state, and general health is not at all good. Any information you may give me will be very gratefully received.

J. A. C., Missouri.

Do not attempt to use thiosinamin in this case, but, Doctor, operate promptly. We cannot possibly tell just what you may have to do, but it strikes us that you will have to dilate the anal sphincters (it is possible you may have to sever, dissect away cicatricial tissue, and repair), while, on the other hand, after dilatation you may find that a thorough operation for fistula (internal) together with gradual dilatation and application of antiseptic enemas will prove sufficient. You will find the operation for relief of anal stricture described in any modern work on surgery. If you care to make a careful examination of the parts and report exact conditions, we shall be able to outline an exact treatment. You will find an ointment of carbenzol invaluable here, after you have dissected away the pathological membrane lining the fistulous tract. Anesthetize your patient and get into the rectum as soon as you can, using reflected light or direct application of electric light and satisfy yourself as to conditions prevailing. Only so can effective help be attained. Try the hyoscine-morphine-cactin tablet as an anesthetic.—Ed.

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Query 5227.—"Calx Iodata as a 'Fattening Agent.'" I wish very much to have a reliable opinion—no guesswork—as to whether calcidin will fatten a patient? Potassium iodide in small, persistent doses will reduce flesh. I wish now to know positively whether calcidin will reduce, or fatten, or behave neutral in this respect?

E. B., New Jersey.

We should certainly not expect a patient to get fat upon any iodine preparation, and calx iodata could hardly be an exception to an invariable rule, except in its being less liable to cause loss of weight, owing to its calcium content. The action of iodine is more or less destructive to the cell. Calcium enables the body to restore the excessive waste caused by iodine. In unnatural grossness we should expect calx iodata to cause a reduction of weight when given with salines, etc., but we should not expect the same preparation to cause an increase of weight except under very peculiar circumstances.—Ed.

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Query 5228:—"Which Remedial Agent Cured the Cowboy?" A question on the report of a case in miscellaneous articles. A cowboy in an acute gonorrheal attack was given arbutin gr. 1-6 every hour, or gr. 1-3 every two hours, with a large goblet of lithia water, with liquid diet. To what do you attribute the cure? The doctor says, the effects of this treatment were "marvelous" (and it should have been!). But was it the lithia water with the liquid diet or the arbutin? I am finding no fault with the treatment, only asking a question.

G. W. F., Missouri.

It would be out of the question to say this man was cured by any one of the three things mentioned. The combination of lithia water which kept the urine bland and normal, arbutin in full doses and a liquid diet would prove efficacious in the majority of cases. You are quite familiar with the ordinary requirements in the case of acute urethritis and, of course, know the necessity for a free, copious stream of bland urine. Arbutin is a very potent remedy in acute gonorrhea, but we are inclined to think that in the secondary stage more powerful germicides would be required in addition, that is, to the measures outlined in your communication.—Ed.

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Query 5229:—"Ptomain Poisoning." I am a strong believer in your doctrines and it is my invariable custom to begin treatment of every case by thoroughly unloading the bowels and arousing the hepatic secretion. During the past summer I was called to a negro man. Just as I entered the room, he was taken with violent cramps in his limbs and intense pain in the stomach. I at once gave him a hypodermic of 1-4 grain of morphine. I then inquired into the history of the case and was told he did not go home for his noon-

day meal but bought and ate a can of sardines and a can of salmon. On learning this, I gave him a hypodermic of 1-10 grain *green* apomorphine, and in a few minutes he vomited as conglomerated a mess as I ever saw. As soon as his stomach would retain it, I gave him calomel, gr. 15, podophyllin, gr. 1, divided in three doses, given two hours apart, followed three hours after giving the third dose with a full dose of salts. Rest assured, this cleaned out and cleaned up all the apomorphine had left. I then gave him two tablets three times a day of W-A intestinal antiseptic, and about four grains of quinine three times a day for a few days. Recovery uneventful. I diagnosed autotoxemia. Was I correct? In discussing the case with a brother doctor, he said it was "toxic poison." What is the difference?

H. C. B., Michigan.

We note with interest your use of *green* apomorphine and subsequent effective clean-up procedures. We do not think there is any question in the world that this was a case of "ptomain poisoning." Autotoxemia properly means poisoning of one's self by one's own products; ptomain poisoning is poisoning by a foreign substance—the ptomains present in the salmon in this instance. The man poisoned by ptomains is apt to die in a hurry. He may have been, it is true, autotoxemic also for weeks. The autotoxemic individual becomes more and more laden with toxic material until at last he breaks down somewhere. He does not, as a rule, have such sudden and severe symptoms and it is a tedious process to get him back to a normally clean condition; not so where the acute ptomain poisoning occurs—the whole thing can be over in twenty-four hours. We point out these facts because you distinctly ask us to differentiate autotoxemia and acute poisoning.—Ed.

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Query 5230.—"A Peculiar Case of Amenorrhea." Mrs. H., age sixteen years, bride of three weeks, brunette, well developed, healthy, had no serious illness, but trouble with nocturnal enuresis since childhood. Menses appeared at the age of eleven years, but were stopped by cold on the second day, and have never reappeared, though she has had periodical attacks of cramps that have been fairly regular. An attack which she had recently, since marriage, was the worst she has experienced and presented the usual symptoms of dysmenorrhea, but with absence of menstrual flow. Examination revealed uterus smaller than normal, but genitalia presented no other abnormality. From examination of the literature at my disposal, I believe this to be an unusual condition, and should be pleased to know if other readers have met with such cases. Would it be advisable to give treatment for the purpose of establishing the flow, and is it probable that she will conceive?

C., Illinois.

This is certainly a serious case and we should promptly institute treatment to reestablish the menses. Go over the genitalia again, Doctor, and carefully palpate tubes, ovaries, etc., and see if the cervical canal is open; also have her blood examined. Of course, she may, from natural causes, begin to menstruate now, but we doubt it, and we would not consider that we were doing our duty by the woman unless we put her under vigorous treatment. If you care, after full examination, to write us further about the case, we shall be pleased to hear from you and suggest treatment, if desired.—Ed.

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Query 5231.—"A Question of Gargles." Are either of these gargle preparations incompatible? Hydrarg. chlor. corros., gr. 1-2; tr. ferri chlor., drs. 4; glycerini, drs., 2; aquæ, q. s. ad. ozs. 8. Or: Hydrarg. chlor. corros., gr. 1-2; glycerini, drs. 4; hydrogen. peroxidi, ozs. 2; aquæ, q. s. ad. ozs. 3. If not, which one would be the preferable one in diphtheria and tonsillitis?

O. W. H., Illinois.

Neither of the formulæ you give are chemically incompatible, but therapeutically they strike us as decidedly peculiar. The first formula would, however, be pref

erable to the latter, in our estimation, but neither of them appeals to us as a gargle or application in diphtheria and tonsillitis; in fact, hydrarg. chlor. corros. has long since been discarded by us in throat work. —Ed.

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Query 5232:—"Umbilical Hemorrhage." Baby seven days old, father and mother both healthy, no history of syphilis, third child. Normal labor, mother did well, as well as the child in every way. On the morning of the sixth day the cord dropped off perfectly healed and looked to be in the best of condition. In the evening of the same day the child began to bleed at the navel and it died before eight o'clock the next morning. I used the compress and all the drugs that I knew of that would stop hemorrhage. I then put on the Wyeth pins, or rather, I used needles, running them through the skin on either side of the navel; I then took a thread and wound a figure eight around the needles, but the blood came on through. Then another doctor was called, and he used adrenalin, but with no avail. Then I wanted to make an incision through the abdomen and ligate from the under side, but to this the father would not listen, and as I have said before, the child died. Did I do the right thing, and what more I should have done?

C. W. R., Indiana.

Umbilical hemorrhage is a very puzzling condition and sometimes, as you know, persists and ends fatally despite the most earnest and skilful efforts of the attendant. Perhaps stypticin applied with conical-plug pressure may serve where everything else fails. In other cases the ligation of vessels alone can save life, but as you know, in certain abnormal conditions it is impossible to perform this operation. In this instance you had a secondary hemorrhage, and we would suggest that in such a case you apply Monsel's solution or stypticin and make pressure by pouring liquid plaster of paris into the navel, covering with a wad of cotton and applying a firm abdominal binder. Ergotin may be given hypodermically, though we would believe atropine more efficacious. 5Cc of a ten-percent solution of gelatin in sterile normal salt solution should be given hypodermically in addition to local treatment. The use of transfixing pins is correct, but we must take care to transfix the abdominal wall below the umbilicus so as to occlude the hypogastric artery. The second pin should be placed well above the umbilicus, to occlude the umbilical vein. Before inserting pins it is well to compress the walls between the thumb and finger, rolling them to get rid of any possible coil of intestine—and let us here point out the extreme value of digital pressure maintained for some time; a small piece of ice or an icebag being applied locally and a hypodermic of atropine given to relieve local congestion. While the pressure is being made, some plaster of paris may be prepared, and as soon as it is ready, Monsel's solution or stypticin may be freely applied to the area and the liquid plaster promptly poured into the depression. Be ready to put on a thick wad of cotton and binder quickly. If the child dies from hemorrhage after these procedures, you may certainly feel that everything was done that science could suggest. It is altogether unlikely that even operative interference in the shape of cutting down through the abdominal wall would have saved it.—Ed.

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Query 5233.—"Lichen Circumscriptus." I have been using carbenzol and soap in an aggravated case of lichen circumscriptus, with gratifying results. The area affected extends from the axilla to the hip and from the median line to the spinal column; right side only being affected. If you can give me a pointer or two as to treatment, I shall appreciate the kindness.

J. C. M., Oregon.

We do not note "lichen circumscriptus" mentioned by any authority as a separate and distinct disease. Any variety of lichen may be circumscribed, more or less. You might have to deal with lichen pilaris (which is often mistaken for keratosis pilaris) lichen planus, lichen ruber, lichen

acuminatus, lichen varicosis or lichen hypertrophicus—and prurigo is often confounded with lichen polymorphea chronique, etc. Then we have lichen scrofulosis, in which eczema may complicate matters (and we presume this is the form you have to deal with), lichen tropicus, variegatus, and many other forms; and, as we have already stated, any one of these may be circumscribed. Therefore we really are unable to give you any definite suggestions, because the different conditions call for different treatment. However, carbenzol is always excellent, and zinc phosphide (gr. 1-67), alternated with arsenic sulphide (gr. 1-67), may safely be given after meals, one drug for one week, and the other the next. Iridin, xanthoxylin and rumicin (gr. 1-3 each) between meals, together with the dosimetric trinity, two morning, noon and night. Locally, baths of magnesium-sulphate solution—one ounce to the quart, with ten drops of creolin to the quart—are useful. Carbenzol may then be applied to best advantage, and at least twice a day. —ED.

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QUERY 5234.—"Treatment of Leucoderma." Would you kindly inform me if there is any treatment known to you, or others of "the family", for leucoderma or vitiligo. I have a case of this disease which is just starting on one hand; patient is a native lady of this country, but text books and other literature on this subject give but little hope as to recovery.

T. W., Mexico.

Vitiligo is not a common disorder and, as you say, the average text-book has little to say on the subject. Crocker is perhaps as useful as any. We have to deal here, of course, with a condition exactly the reverse to that which presents in chloasma. In vitiligo there is a loss of pigment in patches with (sometimes) hyperpigmentation of surrounding borders. The hands, face, neck or back usually suffer first. The patches may remain small or grow steadily until a great portion of the body is involved. The hair even is affected and becomes particolored, sometimes. We find that many natives of Honduras and Central America suffer from this peculiar disorder. The general health is unaffected and the urine remains normal. The affected areas are usually supersensitive to the heat of the sun and the condition is worse in summer. So far as treatment goes we have nothing definite to offer. Staining of the white patches and removal of pigment from surrounding skin suggests itself. Pilocarpine in small, repeated doses, and arsenic iodide after meals, may help young patients. Saline baths are also recommended. We would try magnesium sulphate, oz. 1, water one quart, for this purpose. Beyond this we can do nothing but maintain elimination and normal conditions generally.—ED.

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QUERY 5235.—"A Case of Overmedication." For some time I have been a reader of CLINICAL MEDICINE and I have found so many good things that I am anxious to learn more. I am a graduate of 1872, so you see that I have been in the galenical harness for some time. It is hard to teach "old dogs new tricks," but a "sensible coon" could be taught, so you can begin on me by explaining the following case, with suggestions. Some days ago I was called to see a man of twenty-eight years, who is ordinarily bright, stout and healthy. He had been drinking whisky of different brands for nearly two weeks. Stayed up and on the go until Friday evening, when he was so drunk that a friend took him in and put him to bed. There he remained, quietly sleeping, until Saturday morning, when he went home. He was up and on the go all day Saturday, drinking some. On Saturday night he says he could not get his breath and was afraid to go to sleep; had a bad headache and was very nervous. Sunday forenoon I was called to see him. I found him verging on delirium; very restless, dilated pupils; bowels acting from a patent "liver medicine"; breath short and slow and jerky; quick, hard pulse; heart's action regular but full and rapid. I gave him a full dram dose of bromidia and water for

effect; getting none, and restlessness increasing, I gave 1-2 grain morphine hypodermically; getting no results I gave one of the hyoscine comp. tablets hypodermically. In less than ten minutes he had a hard tetanic convulsion and stopped breathing for so long a time, I thought he was dying, in fact, a gentleman present said, "We may as well lay him out." I gave him glonoin, atropine and strychnine by hypo and kept up artificial respiration all day, changing his position often. He had at least a dozen of these convulsions by 11 p. m., and I gave him fully as many doses of glonoin, etc. Occasionally he would have a long breath, then no more for twenty or thirty seconds. About 11 o'clock he began breathing spasmodically, then began to move his arms and legs some (heretofore the limbs were only moved by spasms), the pupils became responsive and a nice perspiration broke out all over him. Some one present then called him, when he jumped up, looked around and asked who called. I gave him then a thorough course of calomel with podophyllin, directed a good dose of castor oil with ten drops of turpentine in six hours. The next forenoon he was sitting up ready for breakfast but complaining of being very sore over the chest, where I had used it as a pump handle all the day before. Please tell me what caused it and what more could I have done in a country practice.

G. R. C., Mississippi.

It seems to us that the treatment in this case of alcoholism was erroneous. The man was distinctly "overdoped." You must remember that on Saturday night there were symptoms of respiratory depression, the "breathing being slow, short and jerky." Bear in mind that bromidia contains hyoscyamus (respiratory and cardiac depressant). Then 1-2 grain of morphine, also respiratory depressant, and a few minutes later the hyoscine, morphine and cactin comp., further depressant (respiratory). In a case like this, with nervous control completely gone, it is not to be wondered at that the patient pretty nearly "went out." Apomorphine would have given better results, together with enemata and gastric lavage. The first thing was elimination; small doses of glonoin, and cactin should have followed, together with a hot bath—and then possibly one of the H-M-C tablets would have given ideal results, with perhaps a few doses of capsicum and strychnine valerianate. Passiflora in full doses is also efficient in such cases, cactin and digitalin being given to support the heart. You certainly gave yourself an immense amount of work, and while you are to be congratulated upon saving the patient's life by heroic measures, we are quite convinced that different treatment would have prevented not only the convulsions and respiratory inhibition but would have obviated the necessity for artificial respiration and a great deal of anxiety.—ED.

QUERY 5236.—"Secret Cures for Alcoholism." Is there anything which can be given to chronic drinkers, unknown to them, which will give them a distaste for alcohol? Somewhere or other I got the impression that hyoscyamine pushed to saturation and held there would cause such a distaste, but I cannot find it anywhere now in the journal. Am I wrong in my impression that I saw it there? Your advice given in your query column some time ago cannot be followed out here for they (the patients) get drunk on beer in the summer and 98 per cent alcohol in the winter, and while ready to quit drinking, would use no efforts of their own to assist.

C. J. P., Pennsylvania.

Hyoscyamine or atropine pushed to saturation will, as you say, cause distaste for liquor, but the thing to do is to give apomorphine in the whisky and at the same time put the patient on atropine or hyoscyamine until the throat is dry. Where a man will use no effort of his own to assist it is practically impossible to cure the drink habit, but anyone can be cured promptly if he will place himself under medical care and desires to be cured. Unless you can medicate the alcohol you will very

soon find your patient cease to take the medicine you may give them when they find it interferes with their enjoyment of the favorite tipple, and you cannot make a man going about freely take hyoscyamine or atropine to effect if he does not want to. The method we outlined some time ago proves positively efficacious in the majority of cases.

Fluid hydrastis, five to ten drops, is often given in the patient's coffee and sometimes causes a distaste for liquor; chiefly by relieving the debility which causes the desire for stimulants. One of the most widely advertised "secret remedies" consists of hydrastis. If you can push eliminative and tonic treatment and medicate with apomorphine such liquor as the patient does take (or give him straight liquor and a shot of apomorphine just after it) there is no difficulty in stopping the desire. Quassin, hydrastin and strychnine nitrate are the best tonics. Lupulin relieves the irritable stomach of drunkards. Atropine, gr. 1-500 every three or four hours, will make all liquor "taste bad."—ED.

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QUERY 5237.—"Calx Iodata." In the administration of calcidin tablets will it in any way injure its effects to dissolve the tablet and allow it to stand in solution while using it? Or should the tablet be dissolved only at the time the dose is to be administered? I notice on dissolving the tablets that a white precipitate forms that falls to the bottom of the bottle and is hard to keep suspended long enough to pour out and administer the dose, consequently leaving a good deal of the white precipitate in bottom of the bottle when the solution has been all given. And I thought perhaps that might have some deleterious effect on the virtue of the tablet. Also, will I get as good effects from the calcidin tablet to give it as a tablet without dissolving it? Will I get as quick results?

I am using the tablets, but I believe I would like the powder better inasmuch as it would be easier dissolved, the tablets being rather hard to dissolve. How is calcidin in bronchial asthma? I was called to see a case of it this day—a lady with much dyspnea.

I put her on good-size dosage of calcidin, repeated often; the first time I have ever tried it in such a case. I like it in croup. I don't see why it should not be good in asthma (bronchial). Is calcidin useful in tubercular troubles?

I. L. W., Kentucky.

The fact that *calx iodata* consists of lime carrying an excess of iodine will explain the precipitation of the "white powder" (lime), which of course is insoluble. As we have pointed out, water takes up *all* the iodine and a certain part of the calcium (for proportion, etc., see literature); thus, if you desire to exhibit iodine in full doses and lime in smaller quantity, you exhibit the supernatant solution *only*; but where the full therapeutic action of *calx iodata* is desired, you order the solution to be "well shaken" so that a due proportion of the lime is taken with each dose. The tablet crushed and given with a few swallows of water is just as efficacious as the powder, and more convenient to carry. Solutions are preferable in *croup* and acute conditions where immediate action is of importance, and these should be *freshly* prepared. For prolonged exhibition and "iodine effect" the solution may be dispensed in 4 to 8 oz. bottles. Certainly calcidin is indicated in bronchial asthma, and in all diseases of the respiratory tract. Gr. 1-3 to 1 is the usual dose, repeating every fifteen minutes, half hour, hour or three hours, as the case may demand. *Large* doses are given in syphilis and long-standing dyscrasias generally. As you will note, a 2-grain tablet and a 5-grain capsule of calcidin are offered for your convenience. In conclusion, Doctor, let us urge you to spare a half hour and read the literature on *calx iodata*—it is well worth study.—ED.

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QUERY 5238.—"Cancer?" Farmer, 62 years old, never sick, spare build. Last September commenced to complain of pain in stomach. Not very severe, coming on at irregular intervals or continuing most of the time for several days. Bowels loose,

two to four thin clay-colored stools every morning, mostly before daylight. A little nausea at times. No tenderness or soreness on pressure, but great hardness extending over region of gall-bladder and duct. Appetite good, tongue slightly coated but very pale, pulse 56 to 60. These symptoms continued until the middle of November when the pain ceased, and has not returned. The other symptoms still continue, and in addition, about the time the pain left him, a severe jaundice came on, and for six or seven weeks now he has been as yellow as can be from head to foot. Pulse now from 60 to 64, no appetite, can't bear salt or sugar in his food. He is greatly emaciated; is losing strength; is discouraged, and threatens suicide, or hints at it. Some swelling of feet at nights, mostly disappearing in day time. A little soreness on pressure over lower border of liver.

Have given him calomel, phosphate of sodium, chionanthus—the first for a couple of weeks, the last two continuously; mustard plasters over liver. Have given also hydrastine and juglandin. No appreciable results from any treatment. The hardness over stomach and to the right continues.

What is likely to be the outcome? Please kindly outline treatment.

L. C. L., Ohio.

Cancer of the liver seems probable; in which case you will find a little fever, and a tendency to seek relief by lying on the face. If there is no bile at all in the stools the obstruction is complete, and an operation might discover a removable cause, such as an impacted gallstone.

This diagnosis precludes the hope of a successful treatment as to cure, with the remote possibility that chionanthin might prove miraculous—push it anyway to fullest tolerance—unless we try we never make progress. Keep his bowels clear and clean, and recollect that when the occlusion is not absolute cold enemas sometimes restores bile to the stools. Bilein and sodium sulphocarbolates comp. is excellent if functional. Faradizations with a very fine interruption and a mild current sometimes relieves the pains of true cancer marvelously. Do not forget the possibilities of fecal impaction and other non-malignant abdominal affections. If jaundice is bright lemon color, cancer is more than probable; otherwise the diagnosis is not clear enough to warrant a hopeless prognosis. You should take no chances in a case of this kind. It is serious—dangerous at best. An experienced surgeon should be consulted at once.—ED.

QUERY 5239.—"Abdominal Case." Mrs. A. S., age 60, medium height, stout, mother of five children; no syphilis, cancer or tuberculosis in family; health has been good, with moderate constipation. Had severe gallstone colic in September, 1905, which left soreness. A month later a milder attack occurred. From the first attack she had fever, 100° to 101°F. every day for five or six weeks. No more colic; small gallstones are said to have been found in the stools. Two weeks after fever subsided, she was taken with severe pain in the right leg, for a time, followed by soreness and fulness with occasional pains ever since. The foot and ankle swell a little, but never pit on pressure. There is distention of the vessels of the foot all the time, sometimes mottling of the skin; vesicles under epidermis. Unable to walk since beginning of sickness, pain occasionally in right arm, and lately some in back. Needs assistance to turn in bed. Appetite and digestion good; sleeps well; constipated.

M. J., Iowa.

The description does not assure a diagnosis. The evidence of gallstone is insufficient, and all might be due to one of many other causes, such as a foreign body swallowed. No mention is made of jaundice or itching, necessary concomitants of gallstone. Physical examination and probably an exploratory incision are indicated. For the present all we can suggest is to keep the bowels clear by colonic flushes and saline laxatives (salithia), with heat locally to assuage the pains, and tonics—the triple arsenate with nuclein being among the best.—ED.

EMPYEMA.—Surgeons are resecting altogether too many ribs for this condition, it seems to me.—Carstens, *Lancet-Clinic.*

"THERAPEUTIC LANCET."—Aconite antagonizes the fever process and has been called the therapeutic lancet.—*Wis. Med. Recorder.*

BAY RUM A DRUG.—Bay rum has been officially declared to be a drug, and methyl alcohol can not be employed in its manufacture.

EXPERIENCE.—Most of the experience of the hard-working practical men of our profession goes unrecorded.—*Western Med. Review.*

HYDROCELE.—Early reappearance of fluid in hydrocele merely shows that the operator has never caught on to the use of the Southey tubes.

HEMOPTYSIS.—Inhalation of turpentine is beneficial. Brunton says that diluted with vapor it is vasoconstrictor.—Hichens, *Practitioner.*

DISGUSTING DRUGS—WHY USE?—The best way to disguise disgusting drugs is to give those that are not disgusting.—*Med. Summary.*

ECLAMPSIA.—Another group of cases is hepatic in origin—the most hopeless with a poison peculiarly virulent.—Norris, *Lancet-Clinic.*

HEMOPTYSIS.—The application of ice to the chest is useless, unless applied over the heart to quiet its action.—Hichens, *Practitioner.*

ECLAMPSIA.—Veratrum viride should not be used in the pale, anemic cases we see among shop and factory girls.—Hirst, *Lancet-Clinic.*

ITCHING AND CANCER.—Riesman says preicteric itching is suggestive of cancer of the liver or of the biliary passages.—*American Medicine.*

HIGH AND LOW TENSION.—Neither high nor low tension is in itself evil if within certain bounds. Indeed, each may be salutary.—Hare, *Ther. Gaz.*

ECLAMPSIA.—When eclampsia occurs in a woman nephritic before pregnancy, morphine is a bad drug to give.—R. C. Norris, *Lancet-Clinic.*

SCOPOLAMINE-MORPHINE.—C. M. Nicholson found scopolamine followed by ether so satisfactory in 246 cases that he continued the method. After fifty cases, Nicholson decided against scopolamine preliminary to chloroform anesthesia.—St. *Louis Medical Review.*

FOWLER'S SOLUTION has several drawbacks; in time its strength varies, losing arsenous acid; and it is apt to become mouldy.—*Le Monde Med.*

AESCULIN IN PILES.—An experiment that opens the eyes is the use of aesculin chronically in piles and other rectal maladies.—*Wis. Med. Recorder.*

SUPPRESSION OF URINE.—Lewis attributed postoperative suppression of urine to scopolamine, but Seeling defied him to prove the sequence.—

ECLAMPSIA.—Does potassium prevent eclampsia? Oh, well, it may carry away a little toxic debris and relax vascular tension a bit; and that helps.

COCAINE.—Syracuse pharmacies report sales of cocaine largely decreased, the shops besieged by habitues unable to secure their "dope."—*Pharm. Era.*

ECLAMPSIA.—There are groups of cases that we may look upon as being of intestinal origin; women chronically constipated.—Norris, *Lancet-Clinic.*

ECLAMPSIA.—Of all the drugs used in eclampsia veratrum viride has seemed to me the best, though in some cases inappropriate.—B. C. Hirst, *Lancet-Clinic.*

EXOPHTHALMIC GOITER.—Saline purgatives are of undoubted value. One is tempted to theorize on "elimination." in this connection.—Quine, *I. M. J.*

EXOPHTHALMIC GOITER.—Aside from salines the medicines I have learned to rely on mostly are strophanthus, codeine and bromides.—Quine, *I. M. J.*

HEMOPTYSIS.—Give as much rest as possible to lungs and heart, lower blood pressure and increase coagulability of the blood.—Hichens, *Practitioner.*

INEXPLICABLE!—One of the inexplicable things in the Dispensatory is that it says aconitine is the active principle of aconite, and that the former is too uncertain for internal use. Can it be the active principle and yet be more uncertain than

the parent substance in which it exists in variable and changing proportions? There is no change in aconitine when it has been made into granules with milk-sugar, not even in fifteen years and more.

FAIR PLAY.—*The Wisconsin Medical Recorder* makes editorially a plea for fair play and fairness in discussing the hyoscine-morphine-cactin anesthesia.

SMALL DOSES.—The secret of success with many remedies like aesculin, arbutin and berberine is, small doses for one to three months.—*Wis. Med. Recorder.*

HEMOPTYSIS.—The most convenient derivatives in hemoptysis are mild saline purgatives. Violent or frequent purgation is not desirable.—Hichens, *Practitioner.*

HEMOPTYSIS.—We can certainly influence the blood pressure in the lungs by vasodilators; best by glonoin in small frequent doses.—Hichens, *Practitioner.*

HEMOPTYSIS.—Increase coagulability of blood by giving calcium chloride, 15 to 20 grains, three or more times daily, for not over four days.—Hichens, *Practitioner.*

BRONCHOALVEOLITIS.—Blanton, discussing bronchoalveolitis (*Wis. Med. Recorder*) relies on strychnine for feeble children and aconitine for hyperpyrexia.

SEEING TURKEY.—In *The Medical Fortnightly* of March 11 is an interesting letter from R. G. Eccles on "Seeing Turkey With Medical Eyes."—Get a copy.

A TREATY OF PEACE.—In Monessen, Pa., the doctors and druggists have made a treaty of peace on Englehard's platform. *Med. Fortnightly* doubts its success.

IS HE?—Cabot denies that he is a follower of Mrs. Eddy. Well, he probably thinks he isn't, but the harmony of view is rather close, to say the least.

A NEW EXCUSE.—Emory Lanphear should be made Dean of the Surgeons' Guild—he has discovered a new excuse for cutting, in Meckel's diverticulum.

MUSHROOM POISONING.—Powdered charcoal is said to be effective for mushroom poisoning. Maybe so; it absorbs alkaloids and probably toxalbumins like phallin.

MEASURED DOSES.—*Brit. Jour. Nursing* says medicines should always be measured, as the drop is variable. But suppose the doctor has discounted this in ordering?

"SIMMONS'S REGULATOR."—*The Lancet-Clinic* says a better liver regulator than Simmons's is made of hepatica, 1 ounce; serpentaria, 1 ounce; and senna, 1 1-2 ounces, boiled for a time and adding whisky. One could scarcely expect the *J. A. M. A.* to quote this. The Simmons family must make more out of their "regulator" than even the editorial salary.

FORMALDEHYDE.—Surg. Gen. Rixey has recommended that the cups at the scuttle butts of naval vessels be kept submerged in formaldehyde solutions.

MONOPOLIES.—The Council on Pharmacy has now approved between two hundred and three hundred articles, all but twelve of which are monopolies.

HEMOPTYSIS.—Peverell S. Hichens, M. A., M. D., M. R. C. P., writes learnedly about hemoptysis, but he doesn't know anything about the value of atropine as a hemostatic.

GALLSTONE COLIC.—Some powerful hypnotic, such as the morphine-hyoscine-cactin compound hypodermically, to deaden the sense of pain.—Dryden, *Clinical Reporter.*

A SIGN OF PTOMAIN POISONING.—Dilation of the pupils, as from atropine, is an important symptom of ptomain poisoning, distinguishing it from arsenical poisoning.—*Wis. Med. Rec.*

VEGETERIANISM.—In the *Yale Medical Journal* Prof. Irving Fisher describes experiments going to show that physical endurance is greater in vegeterians than in meat eaters.

SANTONIN.—The *Courier of Medicine* intimates that improvements following the use of santonin may be due to its effect on the nervous system and not to the destruction of worms.

GALENICS.—People who retain belief in the value of galenics should read the article on Pinkroot, by Stockberger, in the *Pharmaceutical Review* for January and February.

WOULDN'T PART WITH IT.—I would not part with my Ellingwood for many times its cost, said an aged physician to the Washington State Medical Association (regular).

ARSENIC AND CANCER.—Does arsenic cause cancer? The long-continued irritation of the epithelium by any cause may possibly do this in an occasional instance.

ANESTHETICS, GOOD AND BAD.—Paul Y. Tupper said, a poor anesthetic, well given, was better than a good anesthetic, poorly given. M. G. Seeling agreed.—*Weekly Med. Review.*

SCOPOLAMINE-MORPHINE.—Collins of Peoria reported over three hundred scopolamine-morphine followed by ether anesthesias without any bad effects.—*St. Louis Med. Review.*

ECLAMPSIA.—R. C. Norris attributes the lower mortality under aggressive surgery to the fact of all cases being treated that way, the mild and severe, those that would have gotten well without surgery are credited to it, and those that die in spite of it give the mortality even to it.—*Lancet-Clinic.* Possibly this applies to other maladies

where the "earliest possible" surgical intervention is urged.

COLLAPSE.—In collapse give repeated doses of atropine hypodermically until signs of vitality are apparent.—*Med. Summary.*

LEPROSY.—At the Congress on Leprosy at Buenos Ayres recently it was claimed that this disease was transmitted by a mosquito.

QUININE causes marked uterine contractions, acting directly on the muscle; contractions are not inhibited by atropine.—Cushny, *B. M. J.*

PUERPERAL FEVER.—R. J. Smith (*Med. Council*) attributes puerperal fevers to autotoxemia in a majority of cases. He is just about right there.

PATENT MEDICINE.—December *National Druggist* has a peachy story of a man who tried to go into the patent-medicine business and didn't. 'Twas Laxacola.

ECHINACEA.—French (*Med. Council*) classes echinacea with calx sulphurata and baptisia as systemic antiseptics. He prefers tablets of the extract.

NOTE THIS.—In our opinion one has no more the right to dispense scopolamine for hyoscine than to label hyoscyamus as belladonna.—John Uri Lloyd.

A PROTEST.—*Northwestern Lancet* voices a protest against the retirement of Dr. Ohage as Health Commissioner—not pliable in the hands of politicians.

THE NEW PRACTICE.—The new W-A Practice will be ready when you read this. It is a worthy companion volume to the Alkaloidal Therapeutics. Price $5.00.

ERGOT.—The effects of ergot differ according to the relative amounts of its two constituent bodies; its practical use depends on the contractor substance only.—Cushny.

DRUG ACTION.—Unfortunately few active practicians have time to study drug action. Get the W-A Textbook of Alkaloidal Therapeutics and find it all boiled down.

PATENT MEDICINES.—A city ordinance of Seattle forbids druggists selling patent medicines containing opiates without a physician's prescription. Good thing.

A COMPLIMENT.—*Southern Clinic* says the publishers of *A. J. C. M.* need no excuse for raising the subscription price, and values us at $5.00 a year. Accept our best.

BOTH SIDES?—The *Journal of the Kansas Med. Society*, speaks of "hearing both sides on the new anesthetic question," and then advises reading the discussion in the *J. A. M. A.* Just fancy that! As a way of getting "both sides!"—N. B: After rereading the item we are confident our Kansas friend did not intend this as a joke. If he did, he has our apologies.

PILOCARPINE markedly contracts the uterine fibers of the virgin and of the pregnant cat; prevented or removed by atropine.—Cushny, *B. M. J.*

NICOTINE stimulates the ganglia on the hypogastric nerve, in overdoses paralyzing them. Adrenalin is more peripheral, at the myoneural junction of that nerve.—Cushny.

SAFE SCOPOLAMINE.—Merck says only scopolamine of -.26 optical rotation is safe, and some in the market is as low as -2. The man that makes it ought to know, if Wood doesn't.

EXOPHTHALMIC GOITER.—60 or 70 per cent of exophthalmic goiters recover under medical treatment; some spontaneously, three during pregnancy.—Quine, *Ill. Med. Journal.*

EUREKA!—Dr. Alleman reports in the Kansas City Medical Index-Lancet that Lieutenant Chase has discovered radio-activity, strongly marked, in the water of Eureka Springs, Missouri.

PEPSIN AND PANCREATIN.—Sollmann comes out with a whoop denouncing liquid preparations of pepsin *and* pancreatin—one eats up the other. Well, doesn't everybody know this?

AUTOINTOXICATION THEORY.—The *Courier of Medicine* lifts up its voice weakly to protest against the autointoxication theory. No use, John, accept it or resign to being a back number.

NOT PROVEN!—Here's a man says that autotoxemia has "not been proved yet." Why will men not use their own senses instead of waiting till someone tells them what they see?

EXTREMELY HUMAN.—To err is human. In much of his application of therapeutic agents to disease Osler is extremely human and no exception to the rule.—Sharp, *Okla. Med. News.*

WORKING IN THE DARK.—To work in the dark and use unknown compounds, simply because the manufacturer wills it so, is a prostitution of scientific therapy.—Innes, *Va. Med. Mo.*

AGE OF THE APOTHECARY.—The age of the apothecary seems to have passed, and if ever revived, it will be through the medium of the dispensing physician.—Updegraff, *Okla. Med. News.*

A POETIC INDORSEMENT!—

To every Form of being is assigned
An active principle.....
In flower and tree.—*Wordsworth.*

THERAPEUTIC NIHILISM.—We have to avoid making our students therapeutic nihilists, as well as keeping them from blind polypharmacy. Just listen to that now, from Thomas McCrae, of Johns Hopkins, in the *B. M. J.*!

THERAPEUTICS AT JOHNS HOPKINS.—McCrae describes an ideal system of teaching therapeutics

at Johns Hopkins, and leaves us in a painful doubt as to how the men can go through it and come out so ignorant.

NOW FOR A LUXURY.—Dr. Frances Powell Waugh has located at North Yakima, Washington. North Yakimen and Yakiwomen will appreciate the luxury of sickness.

WHOOPING-COUGH.—Fearn (*Ecl. Med. Jour.*) praises solanum carolinense in whooping-cough. We have not used solanine yet because calx sulphurata and atropine suffice.

ANESTHESIA.—Busse (*Muench. Med. Woch.*) combines spinal injections with scopolamine-morphine for anesthesia, and reports 150 cases with no bad results.—*Lancet-Clinic.*

PURE AND IMPURE HYOSCINE.—Wood ignores the differences resulting from the use of pure and impure hyoscine. "Doesn't the University of Penna. teach logic?"—*So. Clinic.*

OPIATE NOSTRUMS.—*American Druggist* intimates as a probable effect of the new law as to labeling opiate nostrums, that it will divert money from the coughers of the nation.

CAN'T FIND FLAWS.—How a man hates to be taught. Lots of folk would delight in picking faults with the active-principle argument if they could only detect an error—but they can't.

THE WORST ENEMIES.—Next to a man's own kin his worst enemies are his schoolmates and the boys with whom he was raised. How it jars one to see a mate away ahead of him.

ADULTERATION.—*American Druggist* says uva ursi leaves are often adulterated. This never touches those who use arbutin instead of the crude leaves or galenics from them.

AMANITA PHALLOIDES.—Ford traces the toxic action of amanita phalloides to the toxin, and not to the hemolysin, which is harmless apparently. The former is not destroyed by heat.

MEDICINE AND SURGERY.—Cabot says that only one-tenth of our cases can be aided by surgery and for the others we must look to medicine. Pity that man became so tinctured with Eddyism.

CHEERFUL BOOKS.—In the *Indiana Med. Journal* for March, a lady gives a well-selected list of cheerful books for convalescents. The list is by no means complete, since it does not contain the Houseboat Book.

SURGICAL LIMITATION OF FAMILIES.—Indiana seems to be all torn up over a proposition by the secretary of the Board of State Charities, to regulate the size of the families of the dependent poor by surgical means.

A LITTLE EXTRA MONEY.—The money spent every year for patent medicines by the American people would give each doctor in the land an extra income of $2,000. An additional income of $2,000 a year to every physician would enable him to add immensely to his means of treating the sick, and getting to them quickly.

LEARN RIGHT DRUGS.—We have no use for the sort of men who shirk a problem because it is difficult. Instead of decrying the use of drugs, learn to use the right kind of drugs in the right way.

LOOK OUT!—If the *Courier of Medicine* gets off editorials like that in the March number on the use of drugs, the writer may be suspected of reading THE AMERICAN JOURNAL OF CLINICAL MEDICINE. Better be careful!

TEACHING THERAPEUTICS.—Osborne made a nice talk on teaching therapeutics at Toronto, and said that the Association of American Physicians had actually taken up the study, after years of "total neglect."

STRYCHNINE IN NUX.—Gordin protests (*Am. Jour. Pharm.*) against the U. S. P. method of estimating the strychnine in nux, known as Gordin's method but modified so as to render it unreliable. Standardization!

COUGH.—For the incessant, irritative cough of acute catarrhal bronchitis Butler suggests codeine, gr. 1-67, emetine, gr. 1-67, aconitine amorphous, gr. 1-500, and hyoscyamine, gr. 1-1000, every half to two hours.—*Lancet-Clinic.*

WHY?—*The Oklahoma Medical News Journal* asks why it is damnable to prescribe a preparation before it has received official approval, and commendable to prescribe it as soon as the council has listed it with the other monopolies.

CHLOROFORM AND ETHER.—At the Society of Anesthetists Guthrie opened a discussion on the poisonous after-effects of chloroform and ether. These he attributed to acute fatty acid intoxication. Those interested may find the discussion in the *Lancet* of Feb. 16.

PURE FOOD AND DRUGS LAW.—Witness the turmoil in drug circles over the Pure Food and Drugs Law. What will it be when the law comes to be generally and literally enforced! Few of us realize its far-reaching significance. Get a few files of recent journals of pharmacy and you'll see.

ANESTHETICS.—For mouth, larynx and upper air passages chloroform is preferred, as not exciting excessive mucous secretions. In acute inflammations of the lungs or the bronchi give chloroform the preference. Chronic lung ails do not contraindicate ether. In nephritis, opinion is divided; most of us prefer chloroform on account of the increased blood pressure. In alcoholics the only effect of ether is to produce a comfortable "jag." Chloroform will be substituted. Among western and southern men chloroform will be used in obstetrics. Here its effects have caused wonderment. Operations requiring little time, and with infants and the aged, in these chloroform will be used.—Thornton, *So. Cal. Pract.*